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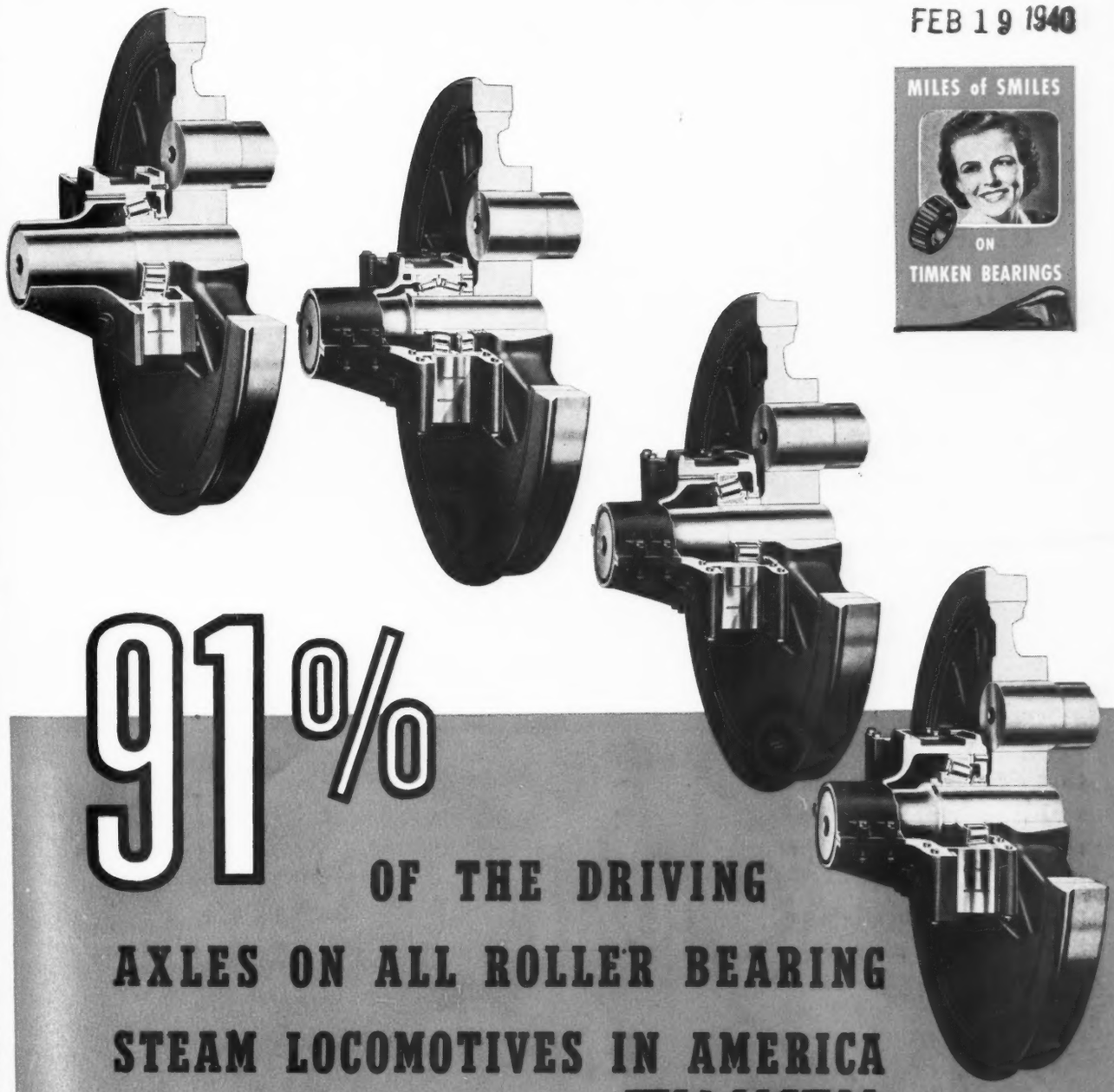

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Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933 at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price, $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 108, No. 7.

RAILWAY AGE

Wages Are Determined by R. R. Earnings, Not by Union Policies

There is probably no fallacy more completely untrue, which at the same time has such general popular acceptance, as that which ascribes improvement in the general condition of people who work for wages to traditional labor union tactics (i. e., boosting wages and reducing hours). Multitudes of well-intentioned people, who have no interest in this or that particular group of organized workers, nevertheless are inclined to look upon any struggle by any such group to improve its economic status as, somehow, in the interests of the standard of living of the people as a whole. That the facts do not bear out such conclusions has already been pointed out by discerning and disinterested students (such, for instance, as Professor Leo Wolman) —and yet the public, even the "intelligent" public, goes on cherishing this mischievous delusion.

Union Activity Has Helped Individuals, Not Employees as a Whole

We are not attacking unionism in calling attention to this misconception but are merely suggesting, in discussing its activities, that facts be substituted for sentimental fancies. So far as the railroad industry is concerned, the incontrovertible fact is that the sum total of all union activity toward the improvement of hours and wages during the past 17 years, while it has undeniably benefited thousands of individual railroad employees, has not improved the well-being of *railroad employees and former employees as a whole* in the slightest degree.

The situation is set forth clearly in the accompanying table and chart. From these, it will be seen that, while the average hourly wage rose by 20 per cent during the 1923-39 period, total annual wage payments declined 36 per cent and average annual employment was reduced by 45 per cent. In other words, despite all the vigor and success with which the railway labor unions worked to secure more favorable wages and working conditions throughout this period, 1939 found railway labor as a whole with only 1858 million dollars to divide among its members, compared to an average of 2896 million dollars in the years 1923-25. This represents a decline of 36 per cent; and, since the unions insisted that each employee who *did* have a job be paid 20 per cent more per hour in 1939 than in 1923-25, the result was that railroad jobs declined 45 per cent.

People with a praiseworthy sentimental interest in the well-being of the wage-earning population ought to look occasionally at figures of total employment and total wages paid, instead of concentrating all their attention on hourly or weekly or yearly wages of the individuals fortunate enough to hold on to their jobs. If they should do so, they might get an entirely different view of the social advantages of traditional union activity. The railroads in 1939 paid an average hourly wage of 74.7 cents as compared with approximately 62 cents in 1923-25; and the average annual wage, of employees fortunate enough to hold onto their jobs, rose from $1617 in 1923 to approximately $1878 in 1939. But what of the 868,000 railroad employees who lost their jobs between 1923 and 1939? Is their well-being of no concern to persons with a public-spirited interest in the welfare of the wage-earning population? And did labor-union efforts for the improvement of working conditions and the increase in wages help these unemployed; or, perhaps, did not union efforts actually contribute to unemployment, enriching the "old heads" at the expense of the employees at the bottom of the seniority list?

Wages Are Determined by Operating Revenues

The accompanying table and chart provide a ready answer to these questions. Of the greatest significance is the fact that *total wage payments to employees bear, practically speaking, an unwavering percentage relationship to operating revenues.* In the whole 17-year period wages never exceeded 50 per cent of operating revenues and never fell below 45 per cent thereof. They actually tended to remain at about 48 per cent of operating revenues, but, in periods of rapidly falling business (such as 1931 and 1938) the percentage was exceeded slightly, to be explained undoubtedly by the inability of managements to effect retrenchments as rapidly as revenues declined. Similarly, in years of rapid improvement in business, re-employment tended to lag behind the improvements in business and gave, temporarily, a slightly lower percentage of wage payments to operating revenues. But these departures from the norm were quickly eliminated. These figures can leave no doubt in the mind of the unprejudiced observer that total wage payments to railroad employees are determined wholly by the volume of railroad revenues, and are not influenced in the slightest degree by union policies as to the hours employees are to work and the wages they are to be paid per hour.

The average hourly rate of wages on the railroads was upward throughout the entire period under review, except during 1932-34, when the 10 per cent wage

"deduction" was in effect. And only in the years of that "deduction" was the percentage decline in railroad employment markedly less than the decline in operating revenues. Specifically, in 1932-34 the decline in operating revenues under the 1923-25 level was 48 per cent, while the decline in employment averaged 46 per cent. By contrast, in 1938 and 1939, with wage rates almost 20 per cent above the 1932-34 level, the railroads were unable to employ as many men, even, as they did at the bottom of the depression.

The behavior of the curve of railroad employment during the period of the wage "deduction" shows that the *deduction saved the jobs of more than 50,000 men*

How Railway Wage Payments Are Dependent Upon Operating Revenues

	(a) Oper. Rev. (millions)	(b) % of 1923—25 = 100	(c) Wages Paid (millions)	(d) % of 1923—25 = 100	(e) % Wages of Oper. Rev.	(f) Avg. No. of employees (thousands)	(g) % of 1923—25 = 100	(h) Avg. Hourly Wage (cents)	(i) % of 1923—25 = 100
1923	$6,289	103	$3,004	104	48	$1,857	104	61.0	98
1924	5,921	97	2,825	98	48	1,751	98	62.3	100
1925	6,122	100	2,860	98	47	1,744	98	63.1	102
1926	6,382	104	2,946	102	46	1,779	100	63.1	102
1927	6,136	100	2,910	100	47	1,735	97	64.4	104
1928	6,111	100	2,826	98	46	1,656	93	65.5	105
1929	6,279	103	2,896	100	46	1,660	93	66.6	107
1930	5,281	86	2,550	88	48	1,487	83	67.8	109
1931	4,188	69	2,094	72	50	1,258	71	68.9	111
1932	3,126	51	1,512	52	48	1,031	58	63.6	102
1933	3,095	51	1,403	48	45	971	54	62.9	101
1934	3,271	54	1,519	52	46	1,007	56	63.5	102
1935	3,451	56	1,643	57	48	994	56	68.6	110
1936	4,052	66	1,848	64	46	1,065	60	69.1	111
1937	4,166	68	1,985	69	48	1,114	62	70.9	114
1938	3,565	58	1,746	60	49	939	53	75.0	121
1939	3,995	65	1,858	64	47	989	55	74.7	120

(the difference between employing 56 per cent of the 1923-25 working force as occurred on the average in 1932-34, rather than reducing this force, as revenues were reduced in the "deduction" years, to 52 per cent of the 1923-25 average).

Fair Earnings for "Capital" Do Not Diminish Those of Labor

Similarly, the restoration of "prosperity" wage levels is shown in this chart to have had an adverse effect on employment; which adverse effect was still further accentuated by the wage advances in 1937. It is significant also that *fair earnings for railway capital are not secured by diminishing "labor's share."* That is to say, in such years as 1926 and 1929 when capital invested in the railways earned almost 5 per cent, the ratio of total railway revenues which were paid to labor was not appreciably less than in years when "capital's wage" was less than 2 per cent. Indeed, when "capital's wage" was highest, not only did the ratio of total earnings paid to labor suffer no sensible diminution, but the total amount paid out to labor reached the highest totals of the entire period under review.

In other words, union wage-raising activity can claim no victories whatsoever in enlarging the proportion of the employees' "take" from the proceeds of railroad operation; and it certainly has had no effect toward magnifying the total revenues received by railway labor, because these revenues are now substantially lower than they were in the period of relatively low hourly wages prior to 1929. *All that traditional union wage-raising activity has accomplished has been to reduce the number of employees among whom an independently-determined share of operating income is divided.*

This evidence would constitute a damning criticism of union policy, were it not for the fact that some, if not all, of the railway unions have in recent years (and in the past year particularly) shown signs of a real awakening to their vital interest in maintaining and increasing the magnitude of operating revenues. By their championship of legislation in Congress to ameliorate the railroads' competitive handicaps, and by their opposition to increasing the subsidies to railroad competitors, the leaders of some of the organizations have at last embarked upon a policy which will benefit railroad labor as a whole, by securing a larger sum in the division of which its members may participate.

There are other ways, however, just as important as the effort in behalf of a competitive square deal for the railroads, in which the labor organizations could maximize the well-being of all employees. The most effective step which they could take in this direction would be to refrain from pressing demands for the benefit of particular individuals which harm the wage-paying ability of the industry. For instance, take many of the working agreements which set up such a sharp division between yard and road service that railroads have to abandon certain traffic rather than incur the expense of moving it. Any kind of a "full" crew agreement, putting men in cabs or cupolas where there is no useful labor for them to perform, simply cuts down the number of trains the railroads can run; the amount of clerical and maintenance employees they can hire; and the amount of traffic they can compete for; and hence reduces the amount of money available to divide up among employees. Several poor Pauls on the section gang or in the shop or freight house are laid off so that one rich Peter may ride the cushions.

"Full" Crew Measures Reduce Earnings, Wages and Jobs

A passenger officer was telling us the other day of a place where he would like to have his management put on a motor car to do local work, so that a present

train now doing this work could be converted into an express—with the strong chance that it would eventually develop considerable new business (the revenues of which would, of course, be shared among many employees). But, under the rules prevailing in this area, such a motor car cannot be operated without a crew of four men—and that represents too great an initial operating loss to justify making this business-building experiment. Such instances could be multiplied by hundreds, and maybe thousands. Union policy is thus holding down railroad operating revenues (and hence total wages to railroad employees). Not only that but, by demanding that four men be employed to do work that two could adequately perform, it is preventing the employment, even, of the two. The "full" crew policy thus does not even "make jobs" for the class of employees in whose selfish interest it is designed.

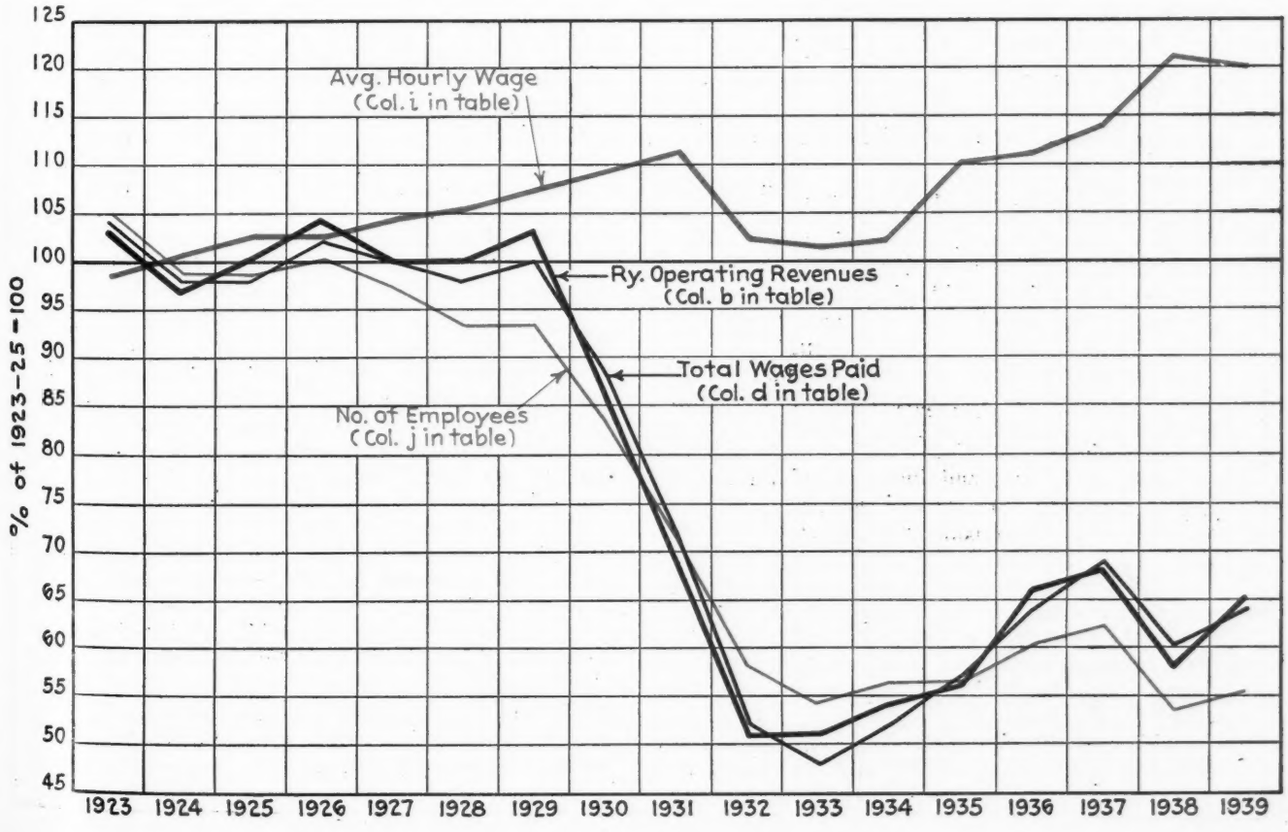
The railroad unions, in sum, by their recently-awakened interest in railroad gross revenues have taken the initial step on the only path that promises any real benefits to railroad labor as a whole (as distinct from the selfish interest of particular crafts or of "old heads" versus younger employees). But union practices are still geared very largely to the job of advancing these particular craft interests (and especially of the older men in each craft), rather than that of the employees as a whole; and the pursuit of these traditional policies is more likely to be against the general employee well-being than for it. A typical instance of one union's policy meant to be craft-protective, but actually gravely threatening the job-giving power of the industry as a whole, is the so-called Harrington amendment to the transportation bill which is now pending in Congress.

Would Harrington Amendment Save Jobs or Destroy Them?

This amendment forbids railroad consolidations which would disadvantage the job status of any railroad employee. Practically speaking, such an amendment would prohibit any mergers whatsoever, because no merger can be conceived which would not affect some jobs. The proposed legislation, without this amendment, provides ample safeguards for employees who might be disadvantaged by consolidation and the intelligent leaders of the standard railway labor organizations accepted these safeguards as adequate—these leaders recognizing that the railroad industry cannot be "frozen" in its present shape and still hope to compete with rival forms of transportation which can merge or combine in any manner which they find gives them economic and competitive advantages.

The Harrington amendment, thus, was no scheme of the enlightened labor leaders. Instead, it was the brain-child of A. F. Whitney, head of the Trainmen's organization and noted above all else for his unwillingness to co-operate with anybody—at least not for any

How Wages Paid to Railway Labor Fluctuate in Unison With Rail Earnings—Wage Rate Reductions Shown to Stimulate Employment and Wage Increases to Diminish It



constructive purpose. Congressman Harrington, who introduced this railroad-hog-tying measure, is not a friend of railroad employment. On the contrary, he is one of the inland waterway bloc of Congressmen who, obviously, would be only too happy to see a large part of the tonnage now moving by rail and giving employment to railway labor, diverted to barge movement. His amendment, thus, was designed to hamper and injure the railroads in their ability to give economical service. And by way of recompense, Mr. Whitney is lending his political support to Congressman Harrington and other waterway congressmen who support this amendment.

Obviously, for every job Mr. Whitney could hope to "save" by his Harrington amendment, he would lose ten by hampering the railroads in improving their competitive economy; and in the political strength he would give to the waterways bloc in its effort to take more traffic away from the railroads.

Organized railway labor's awakening to its true interest in maximizing railway traffic and revenues, while genuine and definitely growing, thus cannot yet be said to be a general attribute of union policy. It is, rather, a hopeful tendency, than the source of all-round well-being for railway labor, the railway industry and the country at large that it could become.

How End Unfairly Low Truck Rates?

When the Motor Carrier Act, 1935, was being considered the motor carriers, the I. C. C., shippers and other interests urged that Congress declare in favor of preserving the "inherent advantages" of motor transportation, and Congress complied. Many truck operators considered this provision of the Act an obligation, and immediately proposed rate revisions to give it effect—but some "smart" truckers said "no." They ignored the principle for which they had clamored, the widespread shipper demand for it, because they were making too much money by "picking and choosing" traffic under the railroads' rate structure, which largely ignored the existence of truck competition.

These operators said in effect: **"Let us get ours while the getting is good. Suppose we do produce much greater chaos in the transportation industry—we shall sufficiently feather our nests before they catch up with us to make it worth while. We'll take the chance."**

How accurately these truck operators appraised their adversaries may be gathered by the fact that they have profitably increased their business since then by 50 per cent, without ever having had to face the competition of the "inherent advantages" of rail transportation.

They well knew that *status quo* advocates and divergent interests in the railroad industry would make any precipitate action against their clever game practically impossible. Knowing this, they sold the railroads a "bill of goods". So it was generally understood that rail and truck rates should be stabilized upon the "normal" rail basis. This was not hard to sell the railroads, because, had not their rate structure been "scientifically" developed by experts?

Truck adoption of this "scientific" basis appealed to many in the railroad industry, who for years had been thinking in terms of monopoly; and who were given by these polite and clever truckers the comfortable opportunity to continue thinking that way. They overlooked, of course, the fact that such a basis denies to the railroads the opportunity to use their superior economy to produce low-cost mass transportation; and simply hands over to the trucks the "cream" of the traffic, leaving the "skim milk" for the railroads.

Neither the truckers, nor the shippers nor the railroads, generally speaking, seem to realize that an unsound condition has developed which is not to the long-run advantage of any of them, because it is making transportation as a whole a wasteful and costly process. **The truck which does the damage is the one that hauls high rated traffic in the outbound direction and comes home with a full load of anything that will net something above "out-of-pocket" costs.**

Just for instance, Illinois railroads only recently reduced their 30,000-lb. *station-to-station* carload rating on drugs to 40 per cent of first class, whereupon the trucks proposed to reduce their 20,000-lb. *door-to-door* truckload rating to the same basis, with the alleged justification that "the involved traffic is of such importance that unless motor common carriers meet this competition on or about the effective date of the rail rates, much damage will be sustained by said motor carriers."

Furthermore, the motor carriers in Central territory recently proposed a widespread reduction in the 20,000-lb. *door-to-door* truckload rates on canned goods to meet the 36,000-lb. *station-to-station* carload rate of the railroads, notwithstanding that **the proposed truck rates will net the trucks not more than half their average cost.** No attempt was made in either of these petitions to prove that the trucks were economically entitled to participate in this business on a basis of "inherent advantages."

It would seem that the sound railroad answer to this situation would be to adjust their rates so to deprive the trucks of the opportunity to "pick and choose" remunerative traffic for the outbound haul. Trucks cannot long continue to bring back return-loads at below-cost rates, if they have no outbound "fat" to keep them going. Once the railroads have taken away this "fat," they can then militantly and universally insist that trucks be not permitted to charge less than their full costs, and that the railroads be permitted to make any lower rates they choose on exactly the same cost basis that is permitted to the trucks. The Commission has already laid the groundwork for this solution in its Naval Stores decision.

It may be argued that this will put a lot of trucks out of business, and it will, particularly the long-distance operators; but nobody in America is obligated to support unjust and uneconomic practices simply because the beneficiaries of such practices demand their continuance.

Modern Locomotives — Their Influence on Railway Operation

A study of the costs of locomotive operation on the Canadian Pacific and how such costs were affected by changing conditions

By James R. Macken

Cost Supervisor, Office of Chief of Motive Power and Rolling Stock, Canadian Pacific

THE past 25 years have been a period of great difficulty for railroads everywhere, and, probably, more difficult for Canadian railways because, to general business upsets, was added wheat crop failures in a country where the export of wheat, and, therefore, the transportation of large quantities of wheat, was the basis upon which equipment inventories were built and maintained.

To analyze the story of the past 25 years we must go back to the year 1904. Canada, in a transportation sense, is a young country and by starting the study at a period 35 years ago the basis is a period when wages and traffic were stable.

Fig. 1 shows the variation in the basic hourly wage rate of Canadian railway shop mechanics between the years 1904 and 1939. The year 1904 is taken as 100, and changes in each subsequent year are shown in relation to that base. Perhaps it should be interpreted that the definition "railway shop mechanic" covers machinists, boilermakers, blacksmiths, and in a general sense, craftsmen who have served an apprenticeship at a trade. It is true there are differentials within these classes but for the purpose of this study these have been ignored.

The first interesting thing to note about this chart is that between 1904 and 1914, a period of 10 years immediately preceding the outbreak of the first World War, the railway shop mechanic was steadily, but normally, bettering his wage conditions. These changes paralleled development of the country and, thereby, logical increases in transportation.

Then came the war. The first effect of this was to stagnate wage rates as is clearly shown on the chart. Wage rates were constant for the years 1913, 1914 and 1915, but during 1915, explained by a rapid increase in commodity prices, in turn explained by competitive bidding for commodities by purchasing groups sent out to the United States and Canada by the British, French, Russian and Belgium Governments, the cost of living in Canada was rising very rapidly and Canadian railway labor, with its agreements with the railway managements, found themselves in an extremely difficult position. The resultant unrest, augmented by the setting up of munition factories in the Dominion where work was performed on a piece work basis and earnings of $2.00, or more, per hour, were common, placed a strain on railway labor so that the railways were forced to try to meet demands which were becoming very determined. The result of this action is shown on the chart in Fig. 1 at the year 1916, and if the trend curve *B* is followed it will be noted the action taken just about took up the slack in the regular advancement which was progressing from the year 1904. Commodity prices continued their advance at an accelerated rate and the drain on railway labor to maintain munition and other manufacturing plants was continuous and serious. Then the Canadian Railways War Board was set up and another, and much more advanced step, was made to raise wage rates and meet the accelerating cost of living. In May, 1918, the United States Railway Administration, under the authority of Director General W. G. MacAdoo, faced with the same difficulties, issued the famous General Order No. 27, to be followed by various interpretations and supplements, and, perforce Canadian railways had to follow, as Canadian railway labor is affiliated internationally, with the results shown between 1918 and 1920.

After the Armistice of 1918 came a short and sharp business boom, which explains the 1920 wage rate peak, and, after the boom, came a short and sharp recession, during which car loadings fell off just as rapidly as they had risen a year or so before and the basic wage rate was reduced by mutual agreement as shown between 1920 and 1922. This was followed by a period of gathering prosperity, affected in Canada by disappointing crops, so that there was a period of five years during which wage rates were stabilized. Then came the boom years of 1927 to 1928 and 1929, to be followed by the resultant crash. Railway labor tried hard to hold on to the boom rates and were successful in delaying the inevitable reduction until 1932, although the reduction was gradually restored between that year and 1938, so that Canadian railway labor enters another World War with wage rates about 1.8 times what they were in 1914.

The curve *C* in Fig. 1 shows the variation in material costs F.o.b. the locomotive. This is a composite weighted average of about 50 different items going into the general repair of a road locomotive. The figure includes freight, taxes, overhead, etc. The interesting thing about this curve is how closely it followed wage rate variations

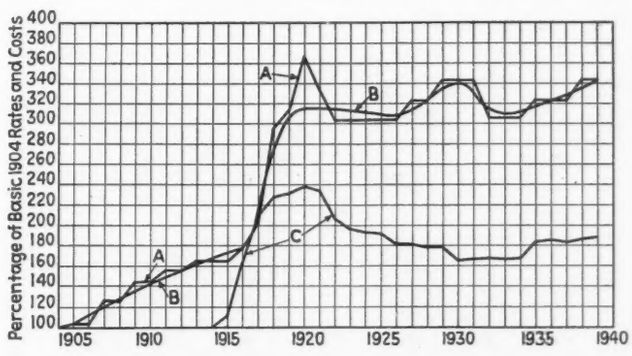


Fig. 1—Variation in Basic Hourly Wage Rates of Canadian Railway Shop Mechanics Expressed in Percentages of 1904 Rate As A Base—Curve *A* Shows Wage Rates. Curve *B* Is A Trend Line of Wage Rates and Curve *C* Shows Material Costs

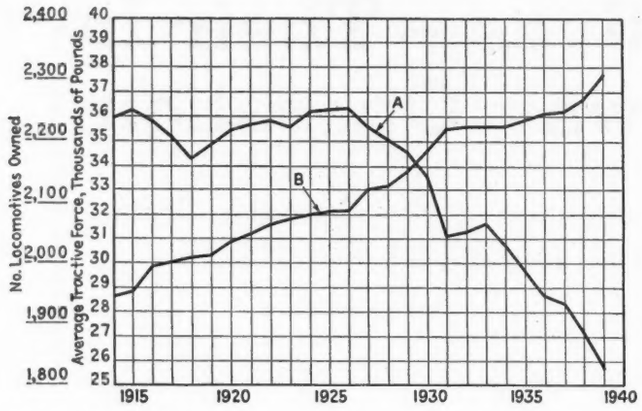


Fig. 2—Locomotive Inventory (Curve *A*) of Canadian Pacific Plotted Against Average Tractive Force in Thousands of Pounds (Curve *B*)

up to the year 1920, although only a percentage of the material (steel, iron, rubber, glass, cotton, piping, etc.) is actually used in locomotive maintenance. From 1921 down almost to 1934, material prices were falling, probably explained by the same, or similar, reasons as will be shown in subsequent charts as measures developed by the railways to meet the high cost of doing business, namely, intensified mechanization of plants and resulting reduction in production costs. The price of material commences to rise in 1934, and has continued upward to date, probably explained by legislation in the United States, as a high percentage of Canadian railway material is imported from the United States.

This chart is of considerable interest today. This is especially true of the wage rate basis on which Europe starts a new war. What changes occur in this during the next few years will have an important effect upon the value of all kinds of securities.

With the chart in Fig. 1 and its superficial explanation in mind, we will now study performance and cost on the Canadian Pacific during the period from 1914 to 1939 and endeavor to suggest an explanation for the changes shown thereof.

Inventory and Average Tractive Force

The chart in Fig. 2 needs little explanation. In 25 years, the locomotive inventory has been reduced (through retirements) from 2,239 to 1,829, and at the same time, the tractive force has increased from an average of 37,700 lb. This chart shows the passing of the small, low-power locomotive. Railway management, faced with an increasing cost of doing business, developed extended runs, high speeds and heavy trains. Whereas, formerly, a locomotive ran over one division of 100 miles, or less, now locomotives run over several divisions with a resulting reduction in the number of engine crews required. Whereas a locomotive formerly made 3,000 to 5,000 miles per month, now a locomotive may make anything up to 18,000 miles and more per month. All of this means fewer enginemen, firemen, train crews, enginehouse men, etc.

Fuel Consumption and Car Loads

Fig. 3 shows the fuel (coal and oil) consumption per 1,000 tons of freight hauled one mile. With this there is shown the average ton-miles per train mile of all freight hauled. These two items are, of course, interlocked statistically because the nearer we approach what is called "100 per cent rating," or the most efficient loading for the locomotive, the less fuel should be consumed on a 1,000 gross ton-mile basis. The interesting thing to note about this chart—a performance record not equalled, so far as I know, by any other railroad on the North American continent—is that the highest consumption was recorded in 1914 when most of the locomotives were relatively new, smaller and loaded lighter than they are today. The increase shown in 1918 is explained by labor trouble at the coal mines in the United States, as a result of which there was cessation of work for extended periods and any coal available was used to fire locomotives. While the figure of 101.4 lb., shown for the year 1938, looks very economical, this figure ought to be considerably improved with the continued retirement of the older locomotives and new developments in modern power.

Mileage Between Repair Periods

Fig. 4 shows the mileage made by passenger and freight locomotives between shoppings for general repairs. Unfortunately, the records prior to the year 1922 are not available, but the mileage shown at the year 1922 is very much in excess of what would have been shown at the year 1914. Here again we see the influence of the modern locomotive, and, incidently, we have further evidence of the efforts made to offset the high cost of doing business. If locomotives can be kept on the road longer, naturally there are fewer shopped per year, and therefore, less man-hours are requied to maintain the inventory. As a matter of informative evidence, since the year 1919, the Canadian Pacific has not worked full time at its main repair shops, except spasmodically, and has employed a much smaller repair force than was employed in the years preceding 1914. The drop in mileage shown for freight locomotives between 1933 and 1936 is purely a "business handled" drop. Locomotives must, by law, have certain overhauling every four years and every five years, independent of mileage made, and, therefore, the locomotives accumulating mileages between 1928 and 1933, were due for shopping between 1933 and 1936, almost independent of mileage. Passenger locomotive mileage fluctuates within narrow limits. This is explained by the use of selective modern power to handle the business offered economically.

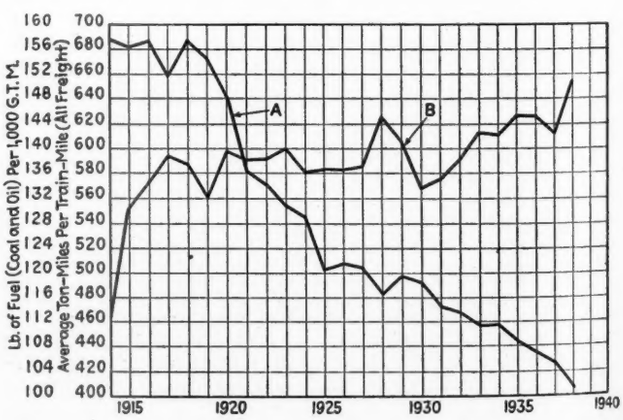


Fig. 3 — Fuel Consumption Per Thousand Gross-Ton Miles Is Shown on Curve *A* While Curve *B* Charts the Average Ton-Miles Per Train-Mile

Fig. 5 converts into cost some of the performance diagrams gone before. The cost of locomotive repairs (including both general and running repairs), shown on Curve *B*, is taken as 100 at the end of the year 1914,

and subsequent years are related to this figure. The effect of U. S. R. A. General Order No. 27, and subsequent violent changes, is quite evident between 1916 and 1920. The steep dip of 1933 is explained by the extremely low traffic of that depression year, but, excluding 1933, and the traffic recession that led down to it, and the recovery that set in thereafter, the variation in maintenance cost per mile has been negligible over a period of 10 years, and, by referring to the curve *A* in Fig. 5, it will be noted that the variation in annual locomotive mileage is much greater than the variation in annual locomotive maintenance. There is evidence that more efficient repair practices has more than offset the cost of doing business as developed through the medium of General Order No. 27 and its supplements.

In addition to locomotive repairs, there is also the cost account of enginehouse expense. The curve *C* in Fig. 5, after taking care of General Order No. 27 and its supplements, indicates what has happened as a result of the introduction of the modern locomotive. The extended runs eliminated intermediate repair points and the quality of work put into the modern locomotive tended to reduce the necessary attention. When locomotive repairs and enginehouse expense have been considered, that is all of the maintenance expense, outside of the investment expenditure, that goes into a locomotive to keep it operating smoothly. There can be no two opinions as to what story these last two curves tell. The

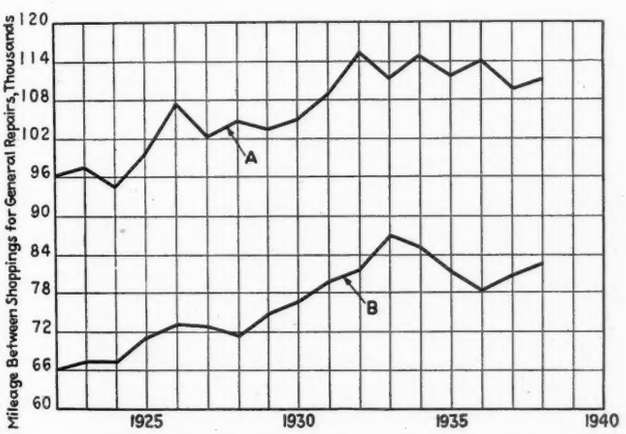


Fig. 4—Mileages Between Shoppings for General Repairs—Curve *A*: Passenger Locomotives—Curve *B*: Freight Locomotives

modern locomotive has more than offset the difficulties created by General Order No. 27.

Curve *D* in Fig. 5 takes in all of the costs involved in locomotive operation. This includes fuel, enginemen's wages, shop and running repairs, enginehouse expenses,

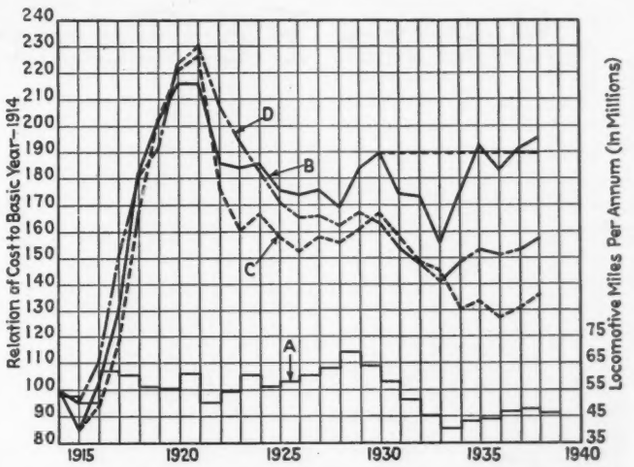


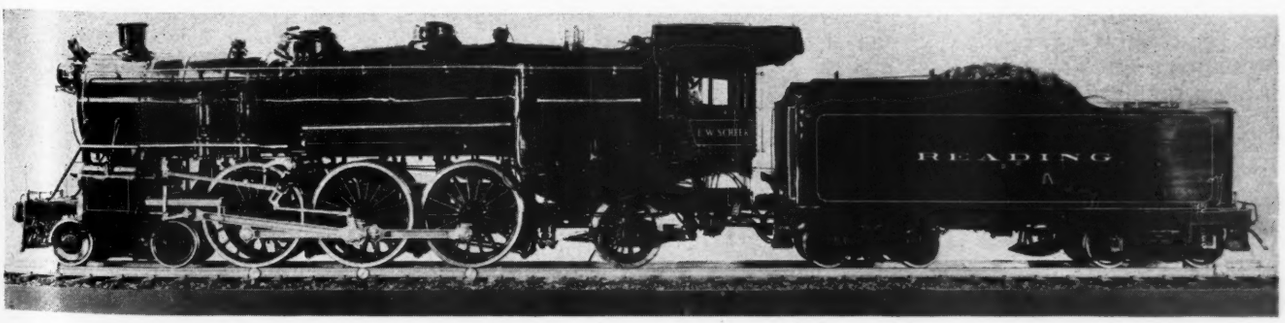
Fig. 5—Variation in Cost As Compared to the Year 1914 As A Base—Curve *A* Shows Locomotive Mileage Per Year—Curve *B* Shows Locomotive Repair Costs—Curve *C* Is Enginehouse Expense and Curve *D* the Total Locomotive Operating Costs

lubricants, and other supplies. Again the year 1914 is taken as 100 and the subsequent years related to that figure. Here again the effect of General Order No. 27 is very clearly shown, and the subsequent measure taken to meet the cost of doing business leave little doubt as to their success.

Conclusion

These charts show one phase of railroading during the past 25 years. While, of necessity, they indicate performance on the railway with which the writer is connected, they also indicate in some degree, more or less, the general trend for all railroads on the North American continent. The real explanation for the record of performance shown can be summarized as follows: (1) The high cost of doing business was the force which motivated the development economies; (2) the retirement of obsolete locomotives; (3) the development of the modern locomotive, and (4) the development by the management of more extensive utilization of locomotives through longer runs and better loading, all made possible by item (3). This story would not be complete without acknowledging the co-operation between locomotive builders, locomotive specialty companies and railway management. Without such modern appliances as superheaters, high-pressure boilers, high-tensile steel boiler plate, tougher tires, feedwater heaters, automatic stokers, etc., management would not have found it possible to make much progress against the drastic effects of General Order No. 27 and its supplements.

* * * *



Reading Shop Apprentices Recently Completed This One-Eighth Scale Working Model of a Class G1sa "Pacific" Locomotive. The Job Was Done in Their Spare Time

Santa Fe Secures Large Return From Treated Crossties*

Care of Its Ties Has Had an Important Bearing Upon the High Standard of Santa Fe Tracks

Study of tests, involving 455 miles of tracks and two and a quarter million ties, shows that preservative treatment, started on this road 55 years ago, plus improved standards of purchasing, inspection, distribution and handling, have had a pronounced effect on tie life, saving many millions of dollars

By G. W. Harris

Chief Engineer, Atchison, Topeka & Santa Fe System

CONDITIONS of track, roadbed and climate, all of which affect tie performance, vary. Although many roads have similar tie conditions, no two roads are exactly alike in this respect. Therefore, I shall confine my discussion to those ties with which I am most familiar—the 60,000,000 ties that form the backbone of Santa Fe tracks, and our present-day tie practices which have been evolved from 55 years of tie treatment and 38 years study of tie test tracks.

Preservatives and Processes Used

Our first treating plant was built at Las Vegas, N. M., in 1885. In that year, 111,503 Western pine ties were treated by the Wellhouse process, a combination of about one-fourth pound of zinc chloride per cubic foot of timber with glue and tannin. In 1892, the amount of zinc chloride was increased to one-third pound. In 1901, the Wellhouse process was abandoned in favor of 0.5 lb. of straight zinc chloride per cubic foot, which was our standard treatment until 1906 when a 4½-lb. creosote Rueping treatment was adopted. The net retention of this preservative by this process was increased to 5 lb. in 1909, and this treatment was used until 1915 when, because of the war, it was necessary to return to the 0.5-lb. zinc chloride treatment until creosote was again available. Towards the latter part of this period, we treated about 25,000 ties with 0.5 lb. zinc chloride and 5 lb. of petroleum per cubic foot, and about 112,000 ties with zinc chloride, creosote and petroleum in the proportion of 0.5 lb. zinc chloride and 5 lb. of 30-70 per cent creosote-petroleum mixture. Later, we treated additional ties with zinc-petroleum. Incidentally, both combinations were improvements over the straight zinc chloride.

In January, 1923, we made the creosote-petroleum mixture standard. In reaching this decision, we were guided by results obtained from approximately one million Western pine ties which had been given a mixture treatment at the Albuquerque plant from 1909 to 1913. A 7-lb. net retention of a mixture of 70 per cent creosote and 30 per cent petroleum was first decided upon for the ties to be treated at our Somerville plant, and a 7-lb. net retention of a 50/50 creosote-petroleum mixture for the ties to be treated at our Albuquerque plant, the ties from the former plant going into tracks in territories having greater rainfall than that served by the Albuquerque plant. A year later, these standards were revised to an 8-lb. 50/50 creosote-petroleum treatment at the Somerville plant and an 8-lb. 45/55 creosote-petroleum treatment at the Albuquerque plant, and also at the plant at National City, Cal., which had been constructed in 1923. In 1930, a treating plant was constructed at Wellington, Kan., and the same treatment has been used at this plant as at Somerville. These four plants are now in operation and the treatments adopted in 1924 are our present standards.

During the 55-year period from 1885 to 1940, we have treated at our own plants, and have had treated at commercial treating plants a total of 116,521,467 crossties; in addition to our requirements of piles, switch ties, bridge timbers, crossing plank and miscellaneous lumber.

Like wood preservation activities in general, our treating practice was at first some years in advance of our crossties research, which started 17 years later with the installation of a tie test track at Cleveland, Tex. Our tie tests, which have developed from this beginning, may be divided into three general classifications, as follows:

(1) Those comprising complete section foremen's territories, generally one on each operating division.

(2) Those known as the A. R. E. A. tests, the conditions of which are reported from time to time by the

* Abstract from a paper presented before the annual convention of the American Wood-Preservers' Association, in St. Louis, Mo., on January 24.

Wood Preservation committee of the American Railway Engineering Association, and by the Tie Service Records committee of this association.

(3) Other tests inaugurated for special purposes.

Many Test Tie Installations

The tie tests falling under the first classification total 26 in number and each consists of a section foreman's district as it existed in 1910 when these tests were first laid out. These test sections total 165.3 miles of main tracks and 19.5 miles of side tracks, in which there are now 544,175 ties in main tracks and 48,866 in side tracks, a total of 593,041. Including the test ties still in track, these test sections have provided for the study of a total of 1,278,591 main track and 88,183 side track ties of various woods and treatments. When the ties in these sections reach the limit of their service life, the replacement ties are taken into the records and these test installations are, therefore, perpetual in nature.

In this respect, these test sections differ from the A. R. E. A. tests in which no attempt is made to follow up the ties laid in replacement of the original ties, the A. R. E. A. tests being comprised of out-of-face installations in which tie service life, kind for kind, is generally longer than in the test sections. The A. R. E. A. tests range in length from short stretches up to 90 miles of line, and total 181.5 miles of main tracks, containing 428,235 test ties, plus ties that have replaced test ties that have failed and which are included within the limits of these tests, although not carried in the records of the test. To date, a total of 579,235 test ties have been reported in the A. R. E. A. tests.

The Test at Kingman, Ariz.

Under the third classification of tests inaugurated for special purposes, we have 13 tests, including 7 stretches of untreated ties of foreign woods, which incidentally, have not given the service life in our tracks that we were led to expect by reason of their excellent performance in the countries in which they originated. The other tests in this group are designed for the comparison of service life of ties of various woods and treatments under similar conditions of climate, traffic and track conditions. One of these tests is located at Kingman, Ariz., in a climate of light rainfall, and was installed in 1922 at the time of second-track construction. The ties in this test are arranged in units of 100, each unit embodying ties of the same wood and preservative treatment. Ties of each wood were treated with 7 different treatments, and there are 14 different kinds of wood in the test. To provide against loss of data resulting from derailments, dragging brake beams, etc., this test was laid out in duplicate, each of the two sections being approximately 6 miles long; they are 10 miles apart and are on tangent track. The Kingman test also includes sawn and hewn oak and gum ties of various treatments, laid out in groups of 200 each in some 4,000 ft. of curved tracks, to permit comparison of hardwood ties of various treatments under curved track service. The Kingman test also embraces one mile each of test ties of various woods and treatments in ascending and descending grades, each group of ties in the ascending track being opposite a similar group in the descending track. To date, 35,349 ties have been studied in the Kingman test, of which 28,770 are still in track.

It may prove interesting to note briefly the standing of the various treatments in this installation at the end of 17 years in track. This is indicated by the percentage of the ties of each treatment removed to January 1, 1939, and the average life in track to that date.

It is too early to compare kinds of wood for the reason that only small percentages of the better treatments have been removed to date. The zinc-treatment ties have practically finished their service life and have given an average life of 8.89 years. As is evident, the addition of petroleum or of creosote-petroleum mixture in rather small amounts to the half-pound of zinc chloride has added materially to the life of the straight zinc chloride-treated ties.

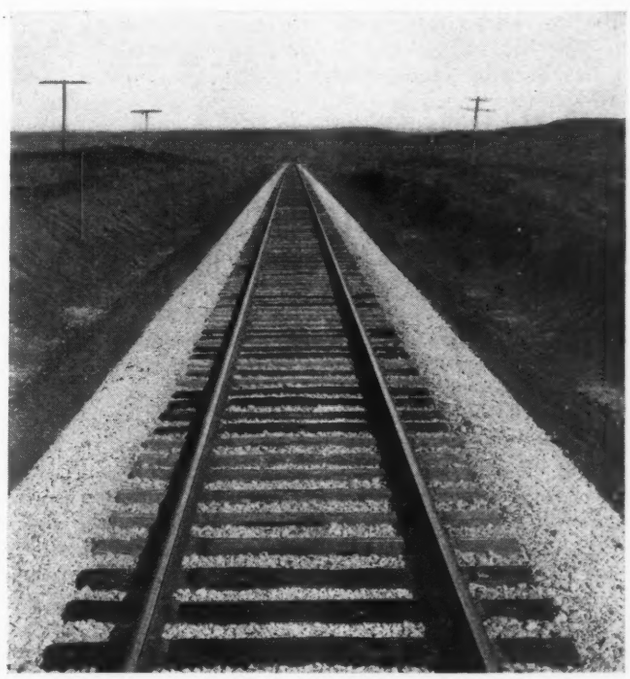
Record of Ties in the Kingman, Ariz., Test After 17 Years

Treatment	Number of ties	Per cent removed to 1-1-39	Average life to 1-1-39
Zinc chloride	2,594	98.61	8.89
Zinc chloride-petroleum	5,356	40.74	14.53
Zinc chloride, followed by 30/70 creosote-petroleum mixture	5,149	30.43	15.12
Creosote-Rueping, 5 lb. net retention	8,144	11.36	15.79
Creosote-Rueping, 7 lb. net retention	5,966	5.48	15.95
Creosote-petroleum 50/50 Rueping, 7 lb. net retention	7,741	4.95	15.87
Creosote-petroleum 50/50 Boulton, Douglas fir only	399	3.01*	15.96*

* 399 ties in double track, Douglas Fir only.

Another duplicate installation employing the same grouping of ties as at Kingman was established near Eldorado, Kan., in 1923 in connection with the construction of a new line. The Eldorado test track is 8.2 miles in length and contains ties of about the same woods and treatments as the Kingman test, except that zinc chloride and combinations of zinc chloride were omitted because we already had ample data on the effectiveness of this particular treatment under climatic conditions comparable to those at Eldorado where the rainfall is much heavier than at Kingman. To date, 27,166 ties in the Eldorado test section have been studied, 25,498 of which are still in track.

Altogether, the tie tests I have mentioned, including the one at Eldorado, Kan., total 455 miles of track and two and a quarter million ties have been tested and have gone into the records of the tests. Of these, 1,126,936 are still in service. In these tests are included ties



A Section of Well-Tied, Well-Maintained Track on the Santa Fe Between Herman, Okla., and Mooreland

treated with 40 preservatives or combinations of preservatives, ties of 31 species of American woods, and ties of 4 species of foreign woods.

Tie Performance Measured by Renewals

As a yardstick for tie performance in general we have, in common with other roads, carefully studied the annual tie renewals on the system. Time will not permit a full discussion of our tie renewals, of which we have an accurate record back to 1898. It is of interest, however, to note that in that year tie renewals per mile of all tracks were 330. Beginning with 1899 and taking five-year periods through 1938, average renewals per mile for these periods have ranged from 260 to the mile in 1904-1908, to 100 in the period 1934-1938. Using an average of 3,036 ties per mile of all tracks, an average tie life, based on these figures, ranges from 11.68 years in 1904-1908 to 30.36 years in 1934-1938. A tabulation of these eight five-year periods is presented herewith.

Tie Renewal Averages and Tie Life, Five-Year Periods, 1899 to 1938

Five-Year Period	Average Renewals per Mile all tracks	Indicated Ave. life based on 3,036 ties per Mile all tracks
1899-1903	211	14.39
1904-1908	260	11.68
1909-1913	250	12.14
1914-1918	180	16.87
1919-1923	149	20.38
1924-1928	126	24.10
1929-1933	113	26.87
1934-1938	100	30.36

The figures in this tabulation afford an indication of the progress which has been made in extending tie life during the last 40 years.

While preservative treatment is the most important factor in obtaining the maximum service life from our crossties, the mechanical protection of our ties is of almost equal importance, and, under some conditions, is even more essential than preservative treatment. Time will not permit the discussion of this factor of tie life to the extent that its importance deserves, but mention should be made of the importance of tie plates of suitable size and design, and of the preboring and adzing of the ties for the spikes, and proper plate seating. Further, it has been a standard practice with us since 1927 to pre-groove all ties to permit complete initial seating of the tie plate rib in order to prevent damaging the treated tie fibres which occurs if this is not done. Good drainage and ballast of the proper type are also highly important factors in crosstie performance.

On the Santa Fe, we are convinced of the importance of careful and efficient handling of the crosstie from the time it reaches the right-of-way until its service is complete. Trained men from the staff of the system manager of treating plants, experienced in the treatment and care of timber, co-operate with division engineers, roadmasters, extra-gang foremen, section foremen, and others, to the end that adzing of the ties in track, mopping of the plate seats with a hot creosote-petroleum mixture, driving of tie plugs, spiking, etc., are carefully and skillfully done. There have been decided improvements in such practices during the last 15 or 20 years, and I firmly believe that the initial economies and increased tie life resulting from such improvements are far greater than is generally realized.

Another practice that is designed to insure that the maximum life of ties will be obtained, involves the inspection of ties that have been removed from track, to determine the causes of failure of each kind of wood and treatment, and to make sure that such ties have not been taken out prematurely. While it is not possible to inspect all ties that are removed, an effort is made to inspect a representative number. This study of ties taken out of track has proved of value in the development of our practices with respect to treatment and the selection of tie woods for the various climatic, traffic and track conditions over the system. For example, of about 141,500 creosote-treated ties that have been taken out of track over a period of several years, 48 per cent had failed on account of shattering and 44 per cent due to spike killing, while only 0.4 per cent failed primarily on account of decay. The high percentage of creosoted ties failing on account of shattering was one of the primary reasons for our going to the creosote-petroleum mixture treatment, which tends to prevent sun checking and shattering.

Purchasing, Specifications and Inspections

Along with the development of treating practices and mechanical protection of our crossties, there has been a corresponding development in the specifications for, and the inspection and distribution of our crossties. Our

An Early Photograph of a Part of the First Tie Test Section on the Santa Fe, Installed in 1902 at Cleveland, Tex., on the Beaumont Branch

crosstie specification is based on many years of general experience with ties of various kinds of wood, supplemented by our test track studies, and excludes ties with defects that our tests and experience have proved will not stand up in service. Each tie is carefully inspected by purchasing department inspectors before acceptance, and those that do not meet our specifications in every respect are rejected. When the purchasing department inspectors accept a tie, letters and figures representing the month in which the tie was cut, the inspector who accepted the tie, and the grade at which it was accepted, are stenciled on its end with paint. These marks are an aid in the proper seasoning of the ties at the treating plants, and to check as to quality and adherence to the specifications that are made from time to time. The ties are moved from the woods to the seasoning yards at the treating plants within 30 days from the date of inspection. This is done to guard against incipient decay before the tie reaches the plant seasoning yard. In general, only ties produced in the same month are placed in the same stack for seasoning, but, if necessary to conserve space, ties produced in two consecutive months may be placed in the same stack, but not more than two months' cutting to the stack. Only ties of one kind of wood may be placed in the same stack.

Ties are stacked in the seasoning yards in a manner

to permit full circulation of air, and in accordance with the recommended practice of your association and the American Railway Engineering Association. Periodic inspections are made to determine when the ties are ready for treatment, and their general condition, and in this connection, laboratory tests and the weighing of ties before treatment are used regularly to determine the moisture content. In fact, I call attention particularly to the fact that every charge of ties treated at our plants is weighed before and after treatment, and weights above the average are investigated immediately. I cannot emphasize too strongly the importance of thorough seasoning prior to treatment.

Adopts Nine-Foot Tie

Prior to 1922, not a great deal of consideration had been given to the distribution of ties of the various woods available to this railroad, other than the length of haul from the sources of supply. In that year, a committee appointed by our operating vice-president, of which it was my privilege to serve as chairman, made an exhaustive study of the hard and softwood ties available and the distribution of these woods as to kinds and sizes, which resulted in the assignment of the various species available to those portions of the system to which they are best adapted with respect to availability and climatic and service conditions.

A system standard was developed by the committee in the form of a map which shows not only the territory in which ties of the various kinds of wood are to be used, but also the grades or sizes to be used in each class of track.

Special attention has been given by the Santa Fe to the distribution of hardwood ties to insure that they are used where service conditions are most severe, such as curves of one degree and over, engine leads, and other important tracks in yards, etc. At the present time our tie map is in the process of revision owing to the recent adoption of 9-ft. ties for use in our high-speed and heavy-traffic main tracks, curves and tangents, between Chicago and Los Angeles, Cal., via both La Junta, Colo., and Amarillo, Tex., and in curves only, in other less important main lines.

During the last several years there have been decided increases in the speeds of both passenger and freight trains. When I saw this coming, I made an intensive study to determine what should be done to the track structure to bring it up to the standard required for the faster speeds. As to ties, I recommended the adoption of 9-ft. lengths of 7-in. by 9-in. sawn and 7-in. by 8-in., hewn ties in place of 7-in. by 8-in. by 8-ft. ties, and my recommendation was approved. A 9-ft. hewn tie provides 12 per cent more bearing area on the ballast than a 7-in. by 8-in. by 8-ft. hewn tie and the longer and wider sawn tie gives 26 per cent more bearing. The 9-in. width will also reduce tie splitting.

What Life Can Be Expected?

As I have indicated before, Santa Fe methods and standards with respect to tie specifications, preservatives, methods of handling, distribution, etc., are not the result of any one study or action, but of an evolution based on a study of the subject for over half a century. Now you may ask, what tie life will be obtained from ties produced, treated and handled according to our present standards. That I can only indicate from a study of our tie records and our general experience and observation in the past, estimating as best one may the favorable effects of the improvements that have been made in recent years in ties, treatment and methods that have not yet had time to demonstrate their value in our tracks. Among such items, perhaps the most important are larger and longer ties, increase in the size and improvement in the design of tie plates, heavier rail, better ballast and drainage, rail anchors, etc.

Average Expected Life of Ties Given Various Preservative Treatments

Kind of Treatment	Number of Ties in Calculation	Placed in Track During the Years	Average Expected Life (Years)
Zinc chloride	314,252	1886-1925	13.47
Zinc chloride-petroleum—two movement	13,463	1915-1926	19.48
Zinc chloride-petroleum-emulsion—Howald process	2,926	1925-1926	19.76
Zinc chloride, followed by 30/70 creosote petroleum mixture	16,851	1922-1926	20.76
Creosote, 5 lb. net retention	790,034	1904-1929	27.88

In order to estimate what we can expect from our treated ties, I have consolidated the results from ties of each treatment and kind of wood, on the basis of life to date, extended in the case of each year's insertion on the basis of the curve developed by the U. S. Forest Products Laboratory which shows tie renewals in relation to average life. Extending the expected life of the ties of each treatment by means of this curve, or using the actual average life where ties of any group have completed their service life, and eliminating from these

Record of the Creosote-Petroleum Mixture—Treated Ties, 1909-1915

Year Inserted	Original Number Inserted	Total Removed	Per Cent Removed	Average Life in Track to 1-1-38	Expected Average Life*
Sawn Western Yellow Pine Ties. Treatment, 10 to 12 lb. per cu. ft. 30/70 Creosote-Petroleum Mixture					
1910	2,266	572	25.24	23.86	35.53
1911	2,259	909	40.24	20.54	30.59
1912	145	95	65.52	17.21	24.04
Total	4,670	1,576	33.75	....	....
Hewn and Sawn Western Yellow Pine Ties. Treatment, 7 lb. per cu. ft. 50/50 Creosote-Petroleum Mixture					
1912	119	41	34.45	21.51	30.86
1913	9,396	843	8.97	22.90	†
1914	712	123	17.28	21.21	32.86
1915	734	245	33.38	20.15	27.16
Total	10,961	1,252	11.42	....	....

* Based on Forest Products Laboratory Curve.
† Per cent renewed is beyond the limits of the Forest Products Laboratory curve for treated ties.

computations all groups of ties that have not been in track ten years, or the renewals of which have not exceeded ten per cent, the averages of expected life for ties of all woods in each of the principal treatments we have used, are shown in another of the accompanying tables.

While there may be some argument as to whether tie test data extended to expected life by means of the Forest Products Laboratory curve are reasonably near actual average life of completed tests, they are believed to be the best means we have of forecasting consolidated results from large groups of ties of various ages, such as the 790,000 creosoted ties in all our tie tests. Also, they enable comparisons to be made of large groups of ties of several different treatments and placed in track in various years.

In the foregoing forecast of consolidated results, we have included all ties in our test tracks of each of these treatments. This includes our A. R. E. A. or "out-of-face" tests, although, as I have previously pointed out, results from these "out-of-face" tests are somewhat more favorable than those of our experimental sections in which ties have been inserted in the ordinary course of renewals. May I point out, therefore, that of the 790,000 creosoted ties mentioned above as having an average expected life

of 27.88 years, 305,080 are in our 26 tests that are comprised of complete sections foremen's territories. By separating these ties from those in our A. R. E. A. tests, we obtain an average expected life of 23.15 years.

Creosote-Petroleum Treatment

In the foregoing comparisons I have not included ties in our test tracks that have been treated with creosote-petroleum. The reason for this is that although we have treated some forty-five million ties with a creosote-petroleum mixture since this preservative was made standard in 1923, and we have more than 578,000 ties of this treatment in our tie tests, the latter show that only 1.5 per cent of about 550,000 inserted in the years 1923 to 1938, inclusive, to have been renewed and this percentage is too small to apply on the Forest Products Laboratory curve. At the present time, therefore, we can only estimate that the service life of these mixture-treated ties will be somewhat greater than the expected average life indicated by the large group of 5-lb. straight creosote ties.

During the years 1909 to 1913, inclusive, we treated approximately 1,000,000 sawn Western pine ties with the creosote-petroleum mixture at our Albuquerque treating plant. During the years 1909-1911 this kind of tie was treated with 10 to 12 lb. of a mixture of 30 per cent creosote and 70 per cent petroleum; in the years 1912-1913 the treatment was a 7 lb. net retention of a 50/50 mixture. The percentage of renewals in these groups is, of course, much higher than in the mixture ties treated during the years 1923-1938. A few of the 1909-1911 and 1912-1913 mixture ties got into our test tie sections, and the record on these stands as shown in the foregoing table.

Although these ties were, in general, placed in dry climate locations, results to date are extremely favorable.

As previously stated, of the 60 million ties in track, about 45 million, or 75 per cent, are of our standard mixture treatment. The effect of this large percentage of mixture-treated ties in service is showing results in the way of lighter tie renewals on account of their longer life. While the creosoted ties on which we figure an expected average life of about 23 years did not have the full benefit of tie plate protection, the advantage of rail anchors and the better drainage and ballast conditions that we have today, they did not have to carry the present heavy high-speed wheel loads. Another factor that is going to affect our average life of ties in the future is the wider and longer 9-ft. tie. These are some of the factors that one has to take into account in forecasting the average life of treated ties, which makes such an estimate more or less of a guess, but in my judgment we have reached the point when we can expect an average life in excess of 25 years.

We are proud of the record we have made in extending the life of crossties, but we are not satisfied to stop here. We intend to continue research work to develop improvements in the treatment and care of ties. We are realizing large annual savings by the use of treated ties, but the cost of tie renewals is still one of the largest items of maintenance-of-way material expense. By extending the life of ties in track to a maximum, we are not only holding down this heavy maintenance expense, but are also conserving our timber resources.

RAILROAD CONNECTION between Roumania and Germany through the recently enlarged Soviet Ukraine has been opened by an agreement recently concluded at Bucharest by the three countries. The service is to start with five trains daily in each direction between Lemburg, Germany and Cernauti, Roumania, according to the agreement.

S. 2009 Conferees Continue Meetings

WASHINGTON, D. C.

CONFEREES on S. 2009, the general transportation bill, resumed their meetings on February 14, but Senator Wheeler stated at the close of the session that there was no announcement he could make in connection with the progress of the deliberations. Thus the only specific revelation remains that in connection with the agreement on language for a "fourth section," as reported in last week's issue, page 289.

That announcement was made by Senator Wheeler at the close of the February 7 meeting. Sessions were also held on February 8 and 9, when a recess until the 14th was taken. After completing their work on the "fourth section" it is understood that the conferees took up the consolidation provisions and have completed their work thereon except for a decision with respect to the Harrington "labor-protection" amendment, which was passed over for the time being.

House Debate on Harrington Amendment

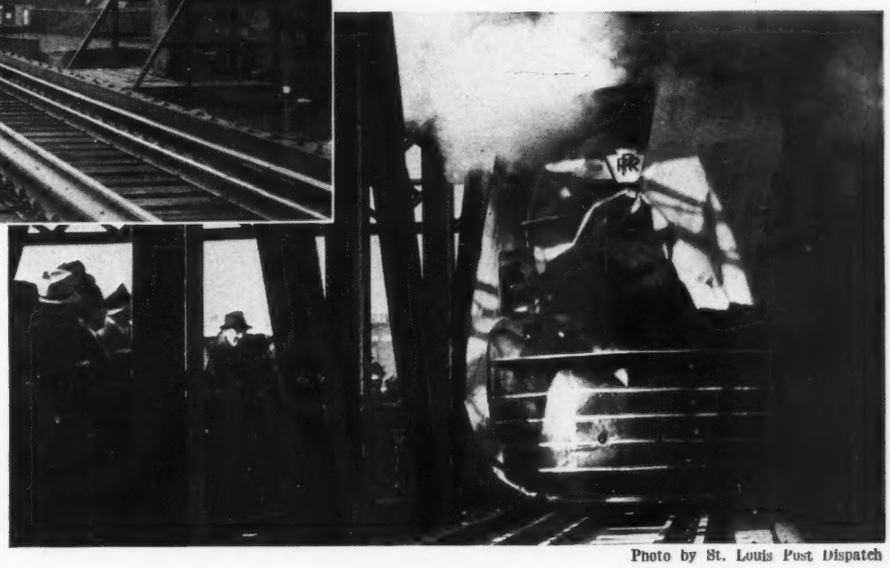
Meanwhile debate on the Harrington amendment got started in the House on February 8 when Conferee Lea, chairman of the House committee on interstate and foreign commerce, indicated his opposition to the proviso, asserting that he was "confident" in his belief "that the Harrington amendment will not help labor." Mr. Lea spoke up with that and other comment on a speech in favor of the amendment which was being delivered by Representative Schulte, Democrat of Indiana. Mr. Schulte, it appears, had learned that there is a consolidation feature connected to S. 2009, although he asserted that "railroad employees have been told that this is not consolidation legislation." Much of Mr. Schulte's speech followed the lines of the letter recently sent to the conferees by A. F. Whitney, president of the Brotherhood of Railroad Trainmen, as noted in last week's issue. Among other things the Indianian asserted that the consolidation provisions of S. 2009 without the Harrington amendment would mean "placing 200,000 to 225,000 railroad employees upon the relief rolls;" and Mr. Schulte is at loss to understand why George M. Harrison, chairman of the Railway Labor Executives' Association, supported the bill when he should have known that.

At another point, the speaker made a calculation which indicated to him that as many as 361,000 railroad employees might be affected, adding that the only way to save them is to insist on the Harrington amendment and kill S. 2009 if that amendment is not embodied in the conference report. Of Representative Harrington, Democrat of Iowa, the amendment's sponsor, Mr. Schulte said "his every heart beat is in sympathy with" railroad workers. Also, the Indianian asserted that "all classes of railroad employees" have signed petitions in favor of the amendment, adding that "so far as I know, or have been able to ascertain, not a single representative of organized labor, including the railroad labor groups, has ever spoken one word against the Harrington amendment."

It was when Representative Schulte again referred to the "225,000 jobs at stake" that Chairman Lea arose to reply that "there is not the slightest basis for any such statement." Then Mr. Schulte asked if Mr. Lea would accept the Harrington amendment; and Mr. Lea replied that he was not in a position to accept it. Whereupon Mr. Schulte came back with a query as to whether

(*Continued on page 332*)

Left—View on Bridge Looking West With Typical Interlocking Signals in the Foreground and Gratiot Street Tower in Background



Right—Pennsylvania's Eastbound Spirit of St. Louis Breaking Through Barricade of Paper and Ribbons When Passenger Train Operation Over the Bridge was Started on January 15

Photo by St. Louis Post Dispatch

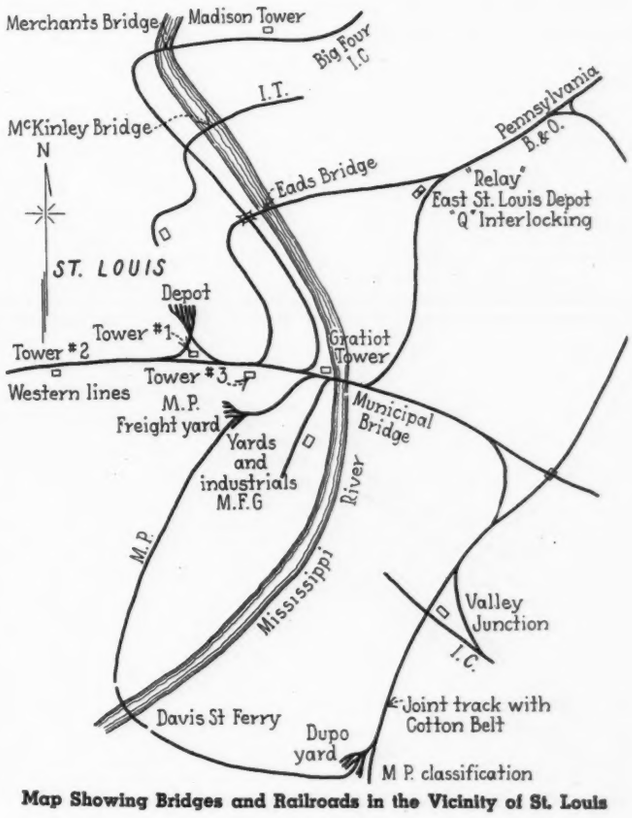
St. Louis Signals Municipal Bridge

Automatic blocks and two interlockings provide for maximum track capacity and routing of trains

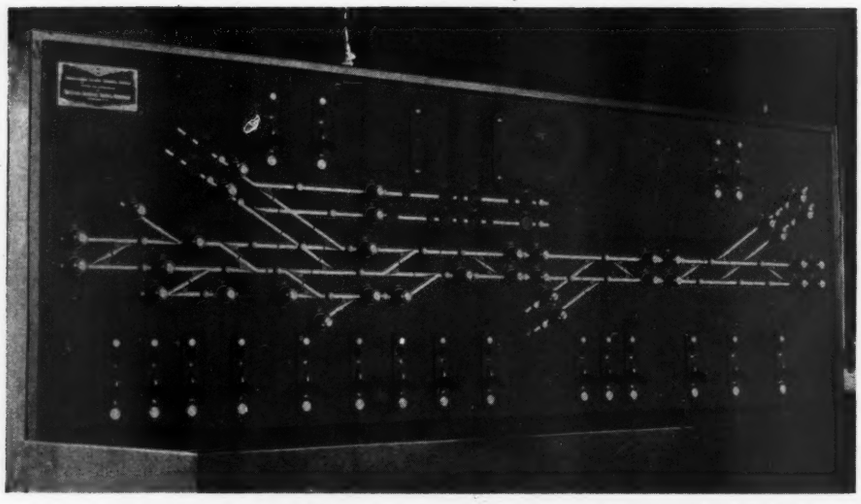
AN extensive signaling project, involving the application of automatic signals to six double-track approaches and to the double-track main structure of the St. Louis Municipal Bridge over the Mississippi river at St. Louis, Mo., and the provision of two all-relay interlockings to control the movement of trains over the bridge has been completed recently under the direction of the Board of Public Service of the City of St. Louis.

An article on page 923 of the *Railway Age* for December 16, 1939, described the history of the construction of the bridge and approaches, and included a detailed explanation of the routing of trains of various roads. Having completed the necessary approaches and reconstructed the track facilities, the City of St. Louis in 1938 started a program to provide power interlockings to route trains at the various junctions and automatic block signaling to afford maximum track capacity at the maximum permissible train speeds. Freight traffic has been handled over the bridge since 1929 by two terminal switching lines, the Alton & Southern and the Manufacturers Railroad, only one approach on each side of the bridge being involved, and train operation was directed by manual block, no automatic signals being used. Following completion of the signaling improvements, the first regular use of the rail deck of the bridge for passenger trains was inaugurated on January 15, when the Pennsylvania and the Baltimore & Ohio started operation of their passenger trains over this route, the first train being the eastbound Spirit of St. Louis of the P. R. R.

In the signaling program the first project, completed



Map Showing Bridges and Railroads in the Vicinity of St. Louis

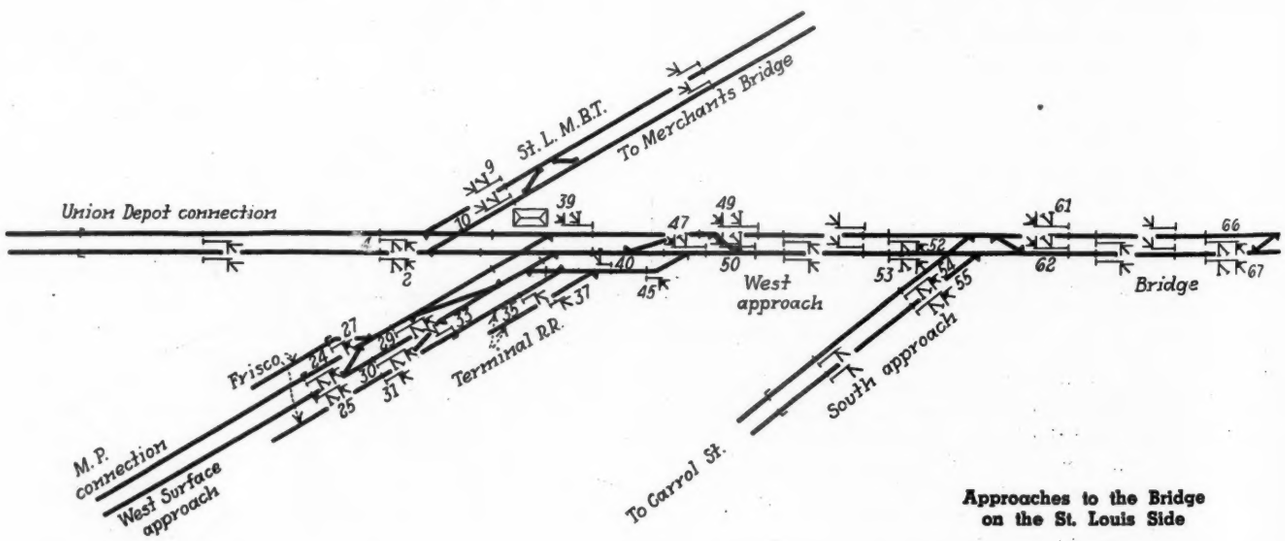


All-Relay Control Machine at Gratiot Street Interlocking

in 1938, was an all-relay interlocking, together with certain automatic signaling, at Valley Junction, on one of the east approaches, at which point connections are made with the Alton & Southern, the Missouri Pacific, the Illinois Central, the St. Louis-Southwestern, and the Terminal Railroad Association. The second project, completed in October, 1939, included complete automatic block signaling on the remaining approaches and the main structure, as well as a second all-relay interlocking at Gratiot street in St. Louis which controls the junctions on the St. Louis side as well as the junction on the east side for lines extending to the north approaches. The entire signaling program involved 47 electric switch machines and 131 searchlight signals, counting both automatic and interlocking signals.

Each of the two tracks on the bridge and on each of the major approaches is signaled for train movements in each direction, thus permitting simultaneous parallel operation of trains in the same direction during periods of the day when the preponderance of traffic is either outbound or inbound. Taking the effect of grades and curves into consideration, the signals are spaced to give maximum track capacity on the basis of train stopping distance at maximum speed of 25 m. p. h. on the bridge and the approaches.

All signals are located at the right of the track governed. On account of clearance limitations, all signals located between tracks are of the dwarf type. Likewise, the remainder of the signals on the bridge structure are of the dwarf type but are mounted on cases or short masts, as shown in the illustration. Although dwarf type signals are used, they display aspects and function the same as high signals. A number plate on each automatic signal and the absence of a number plate on an interlocking signal serve to distinguish the two. None of the home signals are route signals; rather, all are known as speed signals. A total of five aspects are utilized to direct train movements. A single red or a red-over-red on a home signal is a Stop aspect; a single red on an automatic signal is a Stop-and-Proceed aspect. A yellow-over-red on a home signal or a single yellow on an automatic signal is an Approach aspect. A green-



Approaches to the Bridge on the St. Louis Side

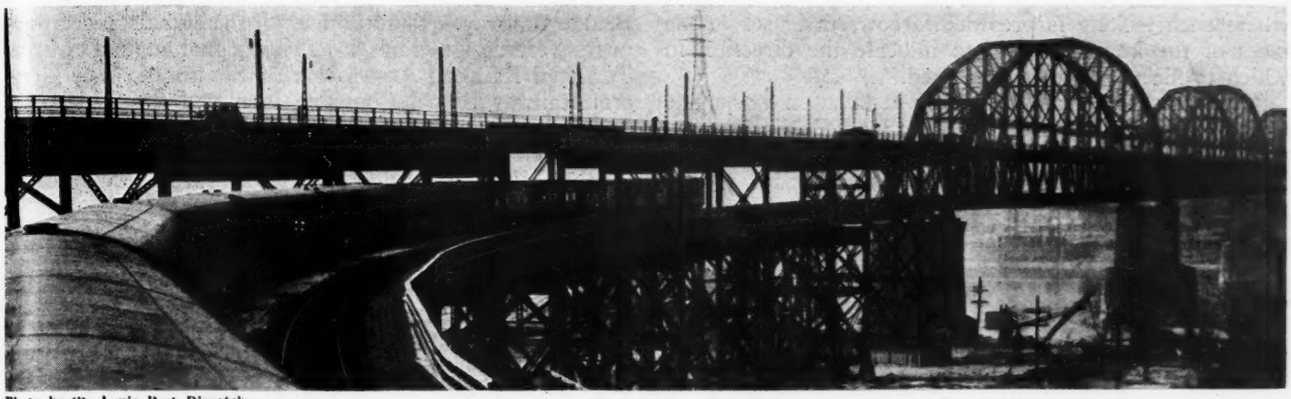


Photo by St. Louis Post Dispatch

Eastbound Spirit of St. Louis Descending Approach on East Side of Municipal Bridge

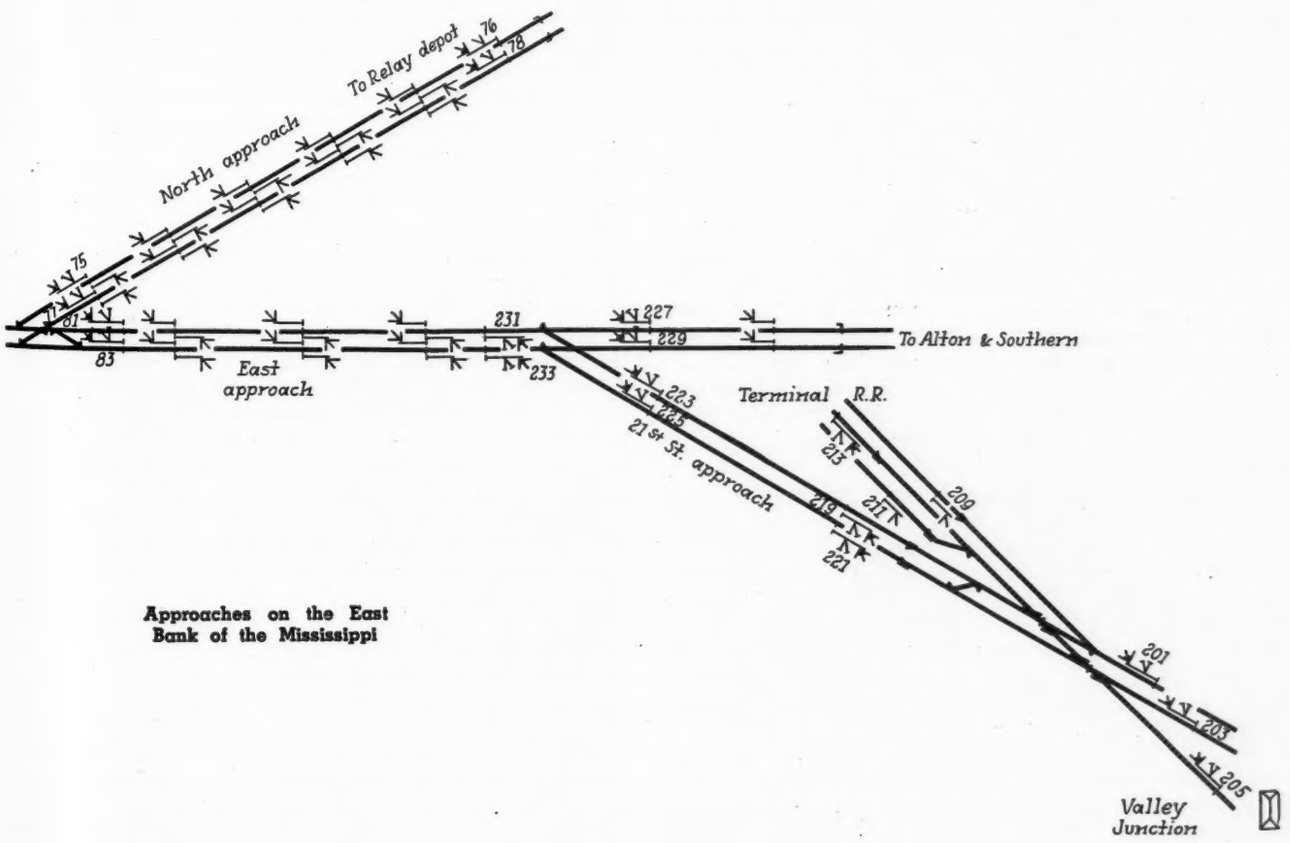
over-red on a home signal or a single green on an automatic signal is a Clear aspect.

A yellow-over red on a home signal is a Restricting or Call-on aspect.

Control Machines

The interlockings at both Valley Junction and Gratiot street are of the all-relay type, i. e., no mechanical locking between levers is used, the interlocking being accomplished by interconnection of circuits. Each control machine consists of a panel, on the face of which is an illuminated track diagram with knobs for controlling signals, and miniature levers for controlling switches. When a knob is turned up, the corresponding signal displays the Clear aspect or an Approach aspect, depending on the condition of track occupancy. When the track section immediately in advance of the signal is occupied, the knob is operated to a downward position, and a Restricting aspect or call-on signal is displayed. Each switch is controlled by an individual lever mounted in the panel below or above the track diagram. Immediately over each switch lever are two lights, one red and one white; the red light is a lock light and indicates that the switch should not and cannot be operated; if the lever is operated with the red lamp illuminated, the lever must be restored and again operated before actual switch operation will be obtained; the white lamp is illuminated when the switch on the ground and the lever in the panel are not in correspondence.

Continuous track indications are provided between control points. All signal levers are on the track diagram at points corresponding to signal locations; an indication lamp in the lever knob, carrying a black arrow, is illuminated when the signal is cleared, the arrow giving the direction in which the signal governs. Traffic locking levers, consisting of knobs similar to the signal levers, are provided in the white lines representing the tracks



Approaches on the East Bank of the Mississippi

where such locking is provided, arrows in lenses in the faces of the knobs turning to indicate the direction in which traffic rights are established.

This interlocking and signaling installation was made under the jurisdiction of the Board of Public Service, City of St. Louis, and under the direction of Baxter Brown, president, and A. R. Ross, associate to the president, and now superintendent of the Municipal Bridge Railway. The locations of the signals and crossovers were designed by A. P. Hix, signal engineer of the Terminal Railroad Association of St. Louis. The General Railway Signal Company furnished the signal and interlocking equipment and designed the circuits and control systems, Mr. Hix and P. M. Gault, signal engineer of the Missouri Pacific, acting as signal engineering advisers.

Railroad Industry Minimum Wage Hearings Get Under Way

Labor wants 40 cents an hour; carriers claim that they can pay no more than 30 cents at this time

WASHINGTON, D. C.

A DEFINITE difference of opinion between railroad management and railroad labor became evident at the conclusion of the first day's hearing on February 14 before the Railroad Industry Committee authorized under the Fair Labor Standards Act to recommend minimum wages for all railroad employees up to 40 cents an hour. W. T. Joyner, counsel for the Class I railroads, told the committee that any increase in the present 30 cents minimum hourly wage in the industry would mean a substantial loss of railroad jobs through further mechanization of the industry. At the same time, Frank L. Mulholland, representing organized railroad labor which will be affected by any order that the committee may make, took the position that the Fair Labor Standards Act establishes a prima facie case in favor of the 40 cent rate and that the committee should establish such a minimum unless the railroads are able, by a preponderance of the evidence, to show that such a minimum wage would substantially curtail employment.

The committee is comprised of 12 members, equally representative of the "public," the railroads and the lower-paid railway employees. Frank P. Graham, President of the University of North Carolina, who is chairman of the committee, was unable to attend the opening hearing because of illness, and George E. Osborne, a member of the Law Faculty of Leland Stanford University, and vice chairman of the committee, presided. Other members of the committee, in addition to the chairman and vice chairman, who are "public" members, are:

For the "public," Charles S. Johnson, Negro Educator, Fisk University, Nashville, Tenn.; and William H. Spencer, Dean of the School of Commerce and Education, University of Chicago, Chicago, Ill.

For the employees: George Wright, general vice president, International Brotherhood of Firemen and Oilers, Roundhouse and Railway Shop Laborers, Chicago; T. C. Carroll, vice president, Brotherhood of Maintenance-of-Way Employees, Umatilla, Fla.; H. A. Bacus, research director, Brotherhood of Railway & Steamship Clerks, Freight Handlers, Express and Station Employees, Cincinnati, Ohio; and James McNamara, vice president, Hotel and Restaurant Employees International Alliance, Washington, D. C.

For the railroads: E. J. McClees, executive secretary, Bureau of Information of the Eastern Railways, New York; C. D. Mackay, assistant vice president, Southern Railway System, Washington, D. C.; Edward Murrin, executive secretary, Association of Western Railways, Chicago; and J. H. Huntt, assistant to the president, the American Short Line Railroad Assn., Washington, D. C.

Joyner Leads Off for Carriers

Mr. Joyner began his presentation to the committee by asserting that "Of the 1,038,795 persons employed by the railroads on November 15, 1939, 954,426 were receiving 40 cents or more per hour, and 84,369 were receiving a lower hourly wage." "Nearly all of those," he continued "receiving less than 40 cents were laborers.

The cost to the Class I railroads of increasing the present minimum wage to 31 cents would be approximately $750,000, while the cost of increasing it to 40 cents would be more than $14,250,000. The railroad industry has been and is in a critical condition. It can stand no increase in the existing minimum rate. Any increased cost must be met, in so far as possible by a reduction in employment. Unfortunately, that is the only certain way out for the railroads."

Showing where the burden of an increase in the minimum hourly wage would fall, Mr. Joyner said that, in case of an increase to 31 cents, 13 per cent of the extra cost would fall on the Eastern railroads, 37 per cent on the Western railroads, and 50 per cent on the Southeastern lines. Of the extra cost burden created by an increase to 40 cents an hour, 16 per cent would fall on the Eastern carriers, 44 per cent on the Western, and 40 per cent on the Southeastern railroads, he said. In the Western district the heaviest burden would fall in Louisiana, Arkansas, and Texas, asserted Mr. Joyner, pointing out that "this cost is a problem which very greatly concerns the railroads of the South."

Localizing the burden further, "We have segregated," said the railroad counsel, "those railroads having 500 or more section men getting less than 40 cents an hour. There are 20 railroads falling into that class. Those 20 railroads would bear about two-thirds of the burden if the minimum wage were increased to 40 cents an hour. There is not an Eastern railroad in the list. There is not one exclusively Northwestern carrier in the list. All 20 operate in the Southeast and the Southwest."

"The present economic condition of these Southern railroads, the roads which would be principally affected by any increase in the minimum wage, is such they cannot take any cost increases out of their net income with-

out ruining some of those railroads and doing great harm to others, without very serious damage to the railroad industry in the South. Many of the railroads of the Southeast and Southwest have no net income. Many others are having a severe struggle. For the past five years the net deficit of the 20 railroads which would be most affected by any increase in the minimum wage has been, on the average, $27,271,640.

"Those railroads must and will seek other means to meet any increased costs. In the case of only a few of them is there any net income at all to absorb an additional burden. Nor can they well recoup through increases in freight rates: that is impracticable, if not impossible. Regretfully but necessarily the railroads must take the course of reducing employment."

Discussing the great proportion of the 30-cent class of railroad wages in the South, Mr. Joyner told the committee that "The basic origin of any wage rate for unskilled or semi-skilled labor is the going rate of pay for such labor in the community in which it is employed. With the decline of Southern agricultural prosperity, the growth of tenancy has been rapid, until today about 60 out of every 100 cotton farms are operated by tenants or share croppers. The decline of agriculture, the surplus of agricultural laborers, the growth of the share cropper class have produced a condition where the annual cash income of a share cropper family will vary from $200 a year to $100 a year, or perhaps nothing. Farm labor in some parts of the South may be hired for a wage of from 50 cents to a dollar a day."

Would Aggravate South's Problem

"This agricultural and share cropper situation in the South," continued Mr. Joyner, "has produced a check on normal development, and what is most important in this case, a going rate for unskilled labor lower than the prevalent in the remainder of the country. The problem of the South is to take surplus agricultural laborers out of agriculture and, if possible, place them in industry. Any action which would reverse that process and take laborers out of industry in the South and throw them back upon agriculture would have a most detrimental effect. Southern agriculture can absorb no more of the unemployed without most serious consequences.

"In the railroad industry, the increase in the minimum hourly wage has already been very rapid in the South. For example, maintenance employees in the South who are now getting 30 cents per hour were getting, on July 1, 1937, an average wage of 21.6 cents an hour; they have received an increase of nearly 39 per cent. All railway employees in the South now getting 30 cents per hour have received an average wage increase of about 35 per cent in less than three years. Most of the railroad employees now receiving from 30 to 39 cents per hour received in 1937 an increase in pay of at least 14.7 per cent. Our 30-cent minimum is very much above the average rates paid for farm labor in the South. Generally speaking, the prevailing wage for highway maintenance forces in most states of the Southeast is 25 cents an hour at this time. The railroad minimum is 20 per cent above that."

"In view of all these conditions," Mr. Joyner pointed out, "we cannot afford now to pay more than a minimum of 30 cents an hour. We must have sufficient time to absorb the rapid wage advances of the past three years before any consideration should be given to any additional increase. The economic balance of a territory or area demands that fundamental economic changes should be gradual. The railroads, the most vital industry in the country, the sickest industry in the country, should not be called upon to lead the advance of wages in general.

"There is no crisis demanding precipitate and undue minimum wage accelerations. While the cost of living has gone down, the minimum wages in the South among railroads and among most industries affected by the Fair Labor Standards Act have increased tremendously. The minimum wages in the South have increased much more rapidly than in any other portion of the United States. The impact on Southern industries and on Southern economy has been severe. From July, 1938, to November, 1939, the South moved ahead in the minimum wage advance just seven times as fast as the rest of the country. Much as we would like to see the economic condition of the South improved, an attempt to advance it too rapidly may defeat the purpose of the whole movement."

"Any order increasing the minimum wage," concluded Mr. Joyner, "would compel the railroads to endeavor to recoup the additional labor costs by reductions in employment. Such an order would provide the compulsion. Mechanization will provide the opportunity. Moreover, any order now increasing the minimum wage, any order now made before we have had time to absorb the shock of recent substantial increases, will constitute in some real part the assumption by your Board of the responsibility to labor for the continuity of railroad employment."

Railroad Labor for 40-Cent Minimum

For the railroad labor unions, Mr. Mulholland founded his opening statement to the committee on the thesis that the ultimate objective of the Act is to obtain a 40-cent minimum for all people affected. The industry committees, he contended, are set up for the purpose of expediting the reaching of this 40-cent standard. The 30-cent minimum set up in the Act, he stated, is nothing more than a "stop-gap" until the 40-cent rate is reached. Furthermore, Mr. Mulholland took the position that there is a legal presumption in favor of the 40-cent rate which can only be overcome by showing that it will cause a substantial curtailment of employment in the industry.

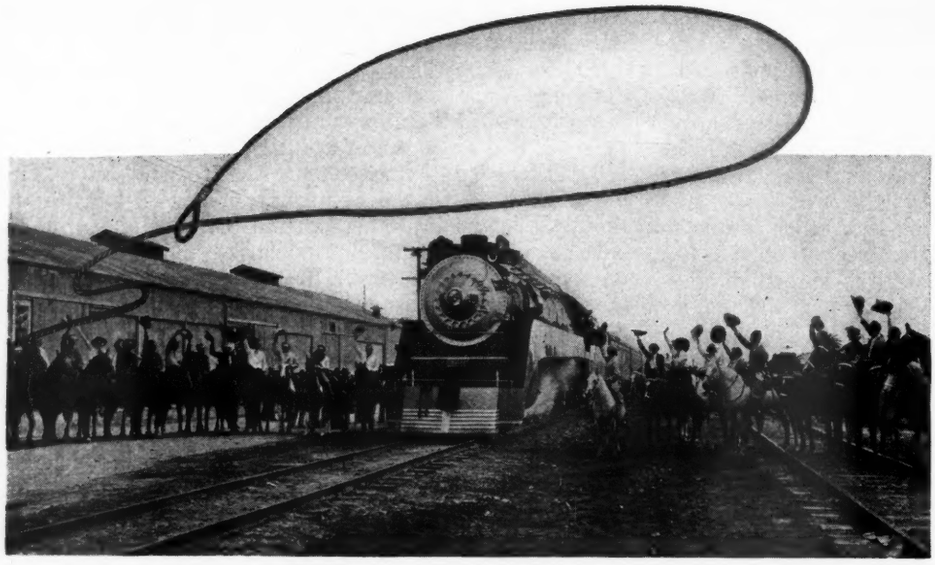
Moreover, the railroad labor lawyer told the committee that the employees want it to promulgate a 40-cent rate and that there is no burden on the employees to prove that that rate should be put into effect. The railroad counsel, in his interpretation of the language of the Act, said that the burden of proof would fall on the employees who are trying to raise the rate from 30 to 40 cents per hour.

Employees Oppose Classification

Also, the employees are opposed to any classification of the industry so that the Southeastern roads would be permitted to pay a lower rate than the rest of the country. Mr. Mulholland felt that such a classification, which is permitted in the Act, would not be feasible because of the fact that no one road operates exclusively in a particular section of the country.

Answering Mr. Joyner's argument that the South cannot afford to pay such high wage rates, Mr. Mulholland retorted that, in his opinion, low wage rates were the real cause of the South being the "Nation's Number One Economic Problem."

The remainder of the first day's session was devoted to an analysis of a detailed report on wages in the industry by Edward B. Mittleman, economist of the Wage and Hour Administration. Mr. Mittleman explained the report in detail and told the committee that it had been prepared expressly for their use in this case.



Showmanship Was a Part of Merchandising. When the Southern Pacific's "Daylight" Streamliners Were Placed in Service Between San Francisco, Cal., and Los Angeles, Descendents of the Original Spanish Settlers and American Pioneers Turned Out to Hail the New Trains. Above Is a Group of Cowboys and Cowgirls Greeting One of the Trains at Salinas, Cal.

Re-Making Transport Package*

Railroads awaken to tempo of American Living and do remarkable job of merchandising lightweight trains

By George A. Kelly

Vice-President, Pullman Company

UNTIL the advent of the new lightweight streamlined trains, passenger equipment was designed by engineers who turned out a thoroughly workmanlike job in design and color that was strictly utilitarian in character and that adequately served the then transportation needs of the country. But, after the entrance on the stage of new, different and bold agencies of transportation in the "blue chip" days of the "twenties", it took the railroads a long time to realize that they were trading for the first time in a highly competitive market with a style-conscious public which was accustomed to color and gadgets in transportation through the styling efforts of the automobile industry.

Color and gadgets, attractively portrayed through the various techniques of advertising, which were not only arresting and appealing but which also stopped the potential customer and largely promoted the primary aim and objective of every person concerned with advertising, produced the desired ultimate customer reaction, the purchase of the merchandise, the transfer of title.

So, railway passenger traffic men eventually, perhaps rationally, came around to acceptance of the idea of novelty as applied to the appearance of railway passenger trains. Some of the old timers, members of the original cast, scoffed a great deal and asserted that the passenger did not care what the outside of a train looked like so long as it got him there. Under the management of some of these old timers, railway passenger travel had been falling off disastrously for a number of years.

It was then realized, too, that the railway transportation stage must be modernized and that train interiors had to be changed and brightened up. But, without minimizing the appeal of novelty in design and the lure of color, the development, basic design and construction of new type trains and car units were due to something deeper and more fundamental than the abstract idea of colorful interiors and decorative streamlining. There is a constant and increasing demand on the part of the traveling public not only for higher speeds in passenger transportation but also for greater comfort and convenience, which applies to all methods of transportation, including that in the air, and that on the water and highways as well as that on the railroads. To meet this demand, all forms of transportation were increasing speeds and building new types of equipment in which modern materials, fabricating processes and facilities which had become available in recent years, were employed. From the competitive standpoint, rail passenger transportation, in order to regain business which it has lost and increase its business, obviously had to meet the desires, needs and demands of the traveling public.

In order, therefore, to provide greater comfort for passengers and, in co-operation with the railroads, to meet the competition of other aggressive agencies of transportation, Pullman pioneered in the development and installation of air-conditioning systems in passenger train cars, and to date has invested more than thirty million dollars in that activity. It likewise pioneered in the development of modern lightweight equipment, both coach and sleeping cars, and in the last four years has invested another thirty million dollars in new type cars. These cars contain new types of sleeping accommodations; such as roomettes, duplex single rooms, double bedrooms, new compartments and new drawing rooms.

* From an address before the Chicago Federated Advertising Club on January 11.

Here then we had a superfine product—the modern passenger train—a monument to the skill and ingenuity of the railroads and railroad supply manufacturers in research and engineering—but what of it? Traditionally, railroading had been conducted as a sort of secret and mysterious business. Some effort but little progress had been made in acquainting the public with what was going on behind the scenes. There were so many other matters absorbing interest in this modern fast-moving world that interest in the railroads seemed dormant—if not dead. The spectacle of barefoot boys thronging beside the tracks to watch No. 69 go by or of everyone in town going down to the "depot" to meet No. 24 seemed as out-of-date as the buggy-whip. But it wasn't—and the industry set about proving that it wasn't.

Promotional Ideas Rushed In

Sales and promotional ideas may have been lacking previously but they came rushing now. Exhibitions of new trains, well-publicized and advertised, began attracting a few curious sightseers at first, then the word spread and ropes and police became necessary to hold the crowds back. Meanwhile, a well-planned publicity campaign was in full operation. Pictures of the new trains began appearing in the newspapers, rotogravure sections, magazines and news reels throughout the country, and the exhibitions took on the nature of triumphal tours. Moreover, just as a man with new clothes on is likely to be more brisk in his movements and often more efficient in performance, so the newly dressed trains improved their service.

Another factor which helped to arrest the downward trend and start the traffic curve upward was the giving of glamorous names to the new trains. Old No. 97 was all right in its way but such names as Zephyr and Flying Yankee have a yet greater appeal. Flattery of local pride was not overlooked and trains were christened Des Moines Rocket and City of San Francisco. Romance and history were remembered in such names as the Mark Twain and the Rebel. Man might well be moved to travel by the Rebel when he would not be especially attracted by No. 45.

Special fast runs attended by elaborate ceremonies and broadcasts on nation-wide hook-ups made the front pages of all newspapers. Governors, mayors, movie actresses and other sorts of dignitaries and celebrities were glad to serve in christening the new trains. Fashion shows were held on board, and pictures of interior decorations, the attractiveness of which was enhanced by beautiful models and the charming stewardesses in service on many of the trains, appeared throughout the press and in women's magazines.

A procession of trains, headed by a glistening streamliner, opened a new line in the Rockies, and everywhere the trains went people lined the right-of-way. The words "streamliner" and "streamlined" became an integral part of the American language over night. The trains that began to be turned out of builders shops after the first ones, all cashed in on this wave of reawakened enthusiasm for railroads. Train-naming contests were held, and exhibitions of the "latest models" were marked by an increasing number of eager spectators. The unflagging interest is perhaps best typified by the fact that only a few weeks ago a leading metropolitan newspaper carried a feature article, with photographs, describing the crowds that still gather nightly to watch the streamliners go by.

The appeal of the colorful new trains and their sleek steam or Diesel-electric locomotives did not cease at mere curiosity. When they were placed in revenue service, the patronage fully justified the splendid selling and publicity job that had been done. In fact, on many of the trains it was as difficult to get a seat as to procure a ticket for a world series game in Cincinnati.

Thousands of questionnaires passed out to passengers on the new trains have shown how appreciative and aware the traveling public is of such comforts and conveniences as air-conditioning, improved lighting systems that combine beauty with greater visibility, modern furniture, drapery and carpeting, train telephone service, radios and the thousand and one other comforts and conveniences that characterize the new trains.

One of the most important and desirable sidelights in connection with the new trains has been the effect on the morale of the crews. The spirit of enthusiasm, almost of adventure, that characterizes the passengers on these fast trains has communicated itself to the crews. They too, join in the enthusiasm and there is a marked eagerness and helpful spirit shown by all the car service employees.

This is also evident in both the station and city ticket offices, where the passenger is made to feel that the buying of a ticket for a streamliner is an event and not merely a prosaic business transaction. Many of the ticket offices have been streamlined as well and are now bright, attractive, air-conditioned offices that match the spirit of the new era in passenger transportation.

Even some of the timetables have been "streamlined." The old prosaic booklets with all the uninteresting appearance of a telephone directory have been superseded by brightly colored booklets, usually illustrated, that perform a selling job in their own way.

Various surveys which have been made reveal the heartening fact that a number of passengers who have traveled on these new trains would not have done so otherwise. This creation of a new traffic market has been one of the major sales successes in the last five years. The inauguration of long distance sleeping car trains and the improving of sleeping car accommodations, which have kept in the forefront of passenger progress, have played an important part in attracting additional traffic and producing additional revenue.

A striking illustration of the success of the new trains and a convincing proof of their traffic-building value is afforded by the additions to trains that have been made since their inception. Practically all the trains that have been in service for two years are now handling additional cars.

Radical measures were necessary to stop the inexorable downward swoop of the curve representing passenger traffic results. Fortunately, among executives in the railroad industry, there were men who were willing to take such measures and who possessed the necessary vision, imagination, and courage to carry out plans that might well have caused the abrupt termination of their careers, if they had failed. But they did not fail. Instead, they succeeded magnificently. The new trains, of amazing design and operated at amazing speeds, captured the public imagination. The downward trend of passenger traffic, that had passed through more than 12 years of prosperity and depression alike, faltered and then started upward.

The multitudes of people who filed through the new streamlined trains on their exhibition tours of the East and the throngs that gathered in the dawn on lonely Western prairies to watch the trains go by gave the graphic forecast in 1934 of how such trains and lightweight, colorful equipment in general were to capture the imagination of the American public.

While the railroads still have a long way to go, the

mere fact of stopping the decline in passenger traffic is an outstanding achievement. Since 1933, passenger traffic has fluctuated, but in the five years from 1934 to 1938 inclusive, an annual average of 34,171,771 more passengers have used railroad trains in each year, beginning with 1934. In other words, 170,858,857 more passengers have been handled in the five years than if the 1933 figures had been maintained and with a 12-year history of decline previously, there is little reason to believe that even those meagre figures could otherwise have been maintained.

Up to July 1, 1939, new lightweight passenger trains, operated as a unit, had piled up 28,317,174 train miles with an on-time performance of better than 90 per cent, figured on a five minute allowance. These trains, whose total daily mileage is now approximately 45,000, have accomplished this feat in all sorts of weather and under all sorts of topographical conditions. Moreover, in spite of one unfortunate accident caused by sabotage, their safety record has been extraordinary. Under the test of severe operating conditions, these trains have proved beyond question that they "can take it." The high speed of which they are capable is taken much for granted now, but in the early days of their development their speed trials made the headlines. What is now practically normal safe speed for long distances, in view of better track and greater knowledge and experience of what the trains can do, then required weeks of preparation and extreme care. The new trains have operated more than 25 million miles at speeds averaging approximately 60 miles per hour overall without resulting in a single passenger fatality.

S. 2009 Conferees Continue Meetings

(*Continued from page 324*)

Mr. Lea would assist in the effort to retain the amendment. "This is a question of abandonment or consolidation," Mr. Lea replied. "Now, consolidation aids labor while abandonment destroys labor. It is not a question of choice. It is a question of what we actually face."

Mr. Schulte expressed his disagreement with the foregoing, although he knew Mr. Lea "is sincere in his desire." The Indianian, however, was unwilling "to gamble with 225,000 jobs." And Mr. Lea here came back with the aforementioned expression of his confident belief that the amendment would not help labor. "It would stand in the way of consolidation," he went on. "Consolidations aid labor by keeping up lines that otherwise will have to be abandoned. Of course, it is a debatable question. No one can tell you that any particular labor or any particular number are going to lose their employment because of consolidations. Consolidations require, in the first place, the consent of the lines affected, a very difficult thing, on account of the matter of refinancing and other problems. It is very difficult to make consolidations. In the next place, no consolidation can be made unless it has the approval of the commission."

Mr. Schulte's next try was a suggestion to "the gentleman from California" that the question "is too serious, it is too vital for either him or me to argue about." Mr. Lea: "The principal labor organizations entered into an agreement with practically all the railroad companies providing for the care of men who might be displaced on account of consolidations. In a recent decision of the Supreme Court, the right of the Interstate Commerce Commission to require such an arrangement was established. In that particular case it was estimated that the savings per year would be about $500,000 and about $300,000 of that benefit went directly to labor."

At another point Mr. Lea stated that "under the present operations about 900,000 men who were formerly employed by railroads have lost their positions," continuing to ask Mr. Schulte if the latter did not think "the laboring man is interested as well as the railroads in restoring a wholesome condition in the railroad industry." "The laboring man," Mr. Lea added, "cannot hope to draw his salary from the railroad unless the railroad itself is a going concern." When he went on to say that "practically an overwhelming majority" of railroad employees supported S. 2009 without the Harrington proviso, Mr. Schulte cited the attitude of the B. of R. T., adding that engineers and firemen and the Order of Railway Conductors in his district are likewise opposed. The Indianian continued to make a prediction that if the bill passes without the amendment, "every one of these railroad labor leaders who have been opposing the Harrington amendment will be dethroned or dehorned, as they call it in the parlance of the railroad world. . . . What the railroads are trying to do is eliminate all forms of competition, to continue the dog-in-the-manger attitude they have had for 20 years. They have finally lost it because of the competition of trucks and water transportation. Now they are using the railroad men to force through this piece of legislation that will force the last link around their throats and choke them to death."

Must Have "Healthy Situation" in Railroad Field

Here Representative Hinshaw, Republican of California, a member of the House committee on interstate commerce, spoke up to ask if Mr. Schulte had previously said that if S. 2009 passes "the freight rates will be set by the railroads and not by the commission." Mr. Schulte replied that he had made such a statement because he felt that the I. C. C. "will be influenced by the railroads;" and he told the Californian to "look at the South today and ask any one of the members from those Southern states." Mr. Hinshaw predicted that the I. C. C. will probably continue to fix rates, and the Indianian agreed that such a situation would be "to the detriment of the people in the gentleman's district and to the detriment of the people in my district." Mr. Hinshaw did not believe that, and he went on to say that his people want lower rates, but the best way to get them "is to have a healthy situation in the railroad field."

It was then O. K. by Mr. Schulte "if the gentleman wants to cut off 225,000 jobs, that is entirely up to him." "I do not want to do that," Mr. Hinshaw replied. "The gentleman knows that the only solution of the problem is to increase the business of the railroads, and they cannot get it unless they can lower their rates and at least break even. More business means more jobs and steadier ones to railroad employees. That is what I want, and that is what the employees and the people want."

Mr. Schulte had the last word. As the gavel fell he was saying: "If the eyes of the railroad workers were opened to the real facts of this bill they would oppose it to a man."

In the appendix to the February 13 issue of the Congressional Record, Senator Overton, Democrat of Louisiana, inserted several resolutions passed by "various agricultural and other groups, State and National," who are opposed to the bill. Among them were the Minnesota State Federation of Labor and the International Longshoremen's Association.

NEWS

R. R. Pessimism Not Warranted

C. E. Johnston sees no cause for undue alarm in present railroad outlook

C. E. Johnston, chairman of the Western Association of Railway Executives on February 8, in a speech before the Santa Fe Club at Chicago, declared the railroads were an essential industry and condemned those whose pessimistic and timid outlook would lead others to believe that government regulation and new forms of competition would ruin the railroads or that the railroads might become government property.

Concerning the pessimistic attitude, he said, "Extending as far back as my memory serves, there has not been a time when 'ruin' of the industry wasn't just around the corner. As far back as thirty years ago, and perhaps longer, the pessimist has had no difficulty finding signs of ruin on the railroad horizon due to government regulation. Of course, the regulation has been applied to all lines alike. We have been regulated by the Interstate Commerce Commission since 1887, for over fifty years, and still we continue to function, and are now functioning more efficiently than ever before. To advance the timid premise that regulation by government makes the entire railroad industry a mere reminiscence of its former self, is to doubt the long run intelligence and sense of fairness of the American people.

"Fear has likewise been expressed that our railroads might become government property, and be as nonprogressive as government properties usually are—I think we can agree that only through the failure of private ownership and operation could government ownership ever come about. There is today, like twenty, thirty or more years ago, no substantial public opinion in favor of government ownership of railways. The trend, in fact, has been exactly the reverse. I therefore repeat, that the only possibility of government ownership of our railroads lies in the failure of private ownership.

"Now comes the 'heat-wave'—fear of annihilation, by new methods of transportation. In other words—complete catastrophe and the end of the railroad world due to the development and installation of other forms of transportation. Did you ever hear of anything quite as ridiculous? As a prime mover of the nation's commerce vital to our agricultural and industrial activities, vital to our national defense, and vital even to our individual existence, the railroads alone of all our industries, can look America in the eye and say 'We are your one essential; our future is your future.'

"We must admit that federal regulation of the railroad industry has been somewhat less than perfect. Competing forms of transportation, both public and private, as well as that type which may be termed either semi-public or semi-private because of the dependence of private operation upon public subsidy, have come into existence. Yet these factors are not the death blow to the railroad industry. They are a challenge to intelligence, to ability, to courage, to foresight. To put it briefly, they are a challenge to leadership."

1939 Pension Taxes

Collections under the Carriers Taxing Act, which finances the railroad pension system, totaled $114,399,354 in 1939 as compared with $111,098,265 in 1938, according to a compilation recently made public by the Treasury Department's Bureau of Internal Revenue. New York districts turned in the largest 1939 state total—$18,147,257, Illinois, the 1938 leader, was second in 1939 with collections totaling $17,523,961. Next in turn came Pennsylvania's $14,605,859; Ohio's $6,983,166; and Missouri's $6,460,122.

Applications for Employee Annuities

A total of 2,160 applications for employee annuities were received during January by the Railroad Retirement Board, bringing to 14,501 the number of applications received in the seven months of the fiscal year 1940.

Applications for lump-sum death benefits received in January totaled 995, making a total of 6,609 for the first seven months of the fiscal year 1940. These claims arise with respect to the death of individuals who had not made an application for an employee annuity.

Rail and Boat Lines Renew Request for Truck-Rate Probe

Railroads and steamship lines participating in joint routes between North Atlantic ports and interior Southeastern points have renewed their requests for an Interstate Commerce Commission investigation of rates of competing motor carriers. A previous petition in the same connection was denied by the commission, as noted in the *Railway Age* of December 23, 1939, page 977.

Hails Thompson As "New Genius"

Federal Barge Line needs more money to keep afloat: Its vessels need water

The selection of Chester C. Thompson as president of the government-owned Inland Waterways Corporation came about as a result of the Department of Commerce's feeling that I. W. C. "needed some new genius attached to it," and that "General Ashburn had outgrown his usefulness," according to recent testimony of Assistant Secretary of Commerce J. Monroe Johnson before a sub-committee of the House committee on appropriations. Testimony given at the same time by Guy Bartley, secretary-treasurer of I. W. C., revealed that the Corporation's consolidated net deficit for the first 10 months of 1939 was $144,132 plus $120,000 paid to employees under a "profit-sharing" plan on the basis of the "profits" of 1938.

The sub-committee which heard Col. Johnson, Mr. Bartley and other I. W. C. officers was considering the State, Commerce, Justice and Judiciary appropriation bill for the fiscal year 1941, and the testimony was made public when the bill was reported to the House last week. The bill carried no appropriation for I. W. C. because the latter has always operated by paying its own operating expenses out of its revenues. The committee's report on the bill did suggest, however, that I. W. C. during the past four or five years has pursued "a very liberal policy of administrative promotions of employees."

"In the need for strict economy in all directions and in further consideration of the fact that, generally speaking, the promotional program of the Corporation has been more liberal than that in most other governmental organizations," the committee added, "the policy should be adopted by the Corporation for the next fiscal year of giving one-step promotions only to those drawing $3,200 or more, whose efficiency is commendable and who on July 1, 1940, will not have had a promotion since July 1, 1935, and to those drawing less than $3,200, who meet the same standards of efficiency and who on July 1, 1940, will not have had a promotion since July 1, 1936."

Assistant Secretary Johnson began his statement with a reference to the transfer of I. W. C. from the War Department to Commerce last July, following along with

(*Continued on page 341*)

Still Moaning Over "Barriers"

Fed. Charlie McCarthys continue to wail for truckers against state laws

The Interdepartmental Committee on Interstate Trade Barriers has completed a digest of laws now effective in nine states whose legislatures meet in 1940, according to a February 11 announcement from Secretary of Commerce Harry L. Hopkins. The digest consists of 32 charts with 650 examples of laws on the statute books in Kentucky, Louisiana, Mississippi, Nebraska, New Jersey, New York, Rhode Island, South Carolina and Virginia, which "on their face or in operation are regarded by the digest as possible barriers blocking free flow of commerce with other states."

The digest was prepared under the direction of A. H. Martin, Jr., director of the marketing laws survey of the Works Projects Administration and a member of the Interdepartmental Committee. Mr. Martin's letter transmitting the digest to the committee's chairman—Paul T. Truitt, assistant to Secretary Hopkins—states that 12 categories of laws "that have been most frequently discussed for their trade barrier aspects" were included. First on the list is motor vehicles, which the Commerce Department press release says "come under the widest range of regulations in each of the nine states, particularly with regard to maximum weights allowed on highways." Of special interest, the press statement adds, are the charts which "reveal expansion in recent years of reciprocal agreements between the states, principally in the fields of motor vehicle licensing and insurance regulations, as well as legislation covering some agricultural commodities."

More about the Commerce Department's work in connection with interstate "barriers" was heard recently by the sub-committee of the House committee on appropriations which considered the appropriation bill carrying Commerce Department funds for the fiscal year 1941. Testimony taken before the sub-committee was made public last week when the bill was reported in the House. The matter had been discussed briefly by Dr. Willard Thorp, economic advisor to Secretary Hopkins.

"In the matter of trade barriers," Dr. Thorp said, "the Department of Commerce has for some time had one man down in the Bureau of Foreign and Domestic Commerce keeping track of what has been going on. That has been the extent of our activity, merely making us able to answer letters from people who have written in asking what was happening with regard to trade barriers. The sort of thing I have in mind when I use the words trade barriers ranges all the way down from the very elaborate state regulations in regard to trucking, which have in many cases developed so as to keep out interstate trucks.

"'If you were taking a truckload across the country you would have to stop at one state line and take off your red lights and put on your green lights. Then at the next state line you would have to put on one red light, and then perhaps at the next state line you would have to have four or five red lights. That makes it very difficult, plus the fact that there are all kinds of state taxes, some of which make sense because they are used for the improvement of roads, but others of which do not make sense."

Responding to questions from Representative Kerr, Democrat of North Carolina, Dr. Thorp pointed out that the motor vehicle laws are state laws over which the Commerce Department has no jurisdiction. He added that "there might be a question about some of these laws, because, after all, the control of interstate traffic is preserved to the federal government, and many of these taxes are very much like tariff duties." Nevertheless, the witness told Representative Rabaut, Democrat of Michigan, that there are no test cases pending; although he knows of "some people'" outside the government "who are thinking about making test cases." Mr. Rabaut next suggested that the situation described by Dr. Thorp was "a good argument for cooperation on the part of the states for the establishment of uniform traffic laws." Dr. Thorp replied that "this is very definitely something which the Department of Commerce ought to take an interest in, and it is something in which a number of different agencies of the government have been interested . . . "

As noted in the *Railway Age* of February 10, page 302, the Temporary National Economic Committee (the so-called "Monopoly" Committee) plans to hear Commerce Department witnesses on "interstate trade barriers" March 18.

F. J. Lisman Dies

Frederick J. Lisman, investment banker and noted expert on railroads and railroad finance, died at his home in Manhasset, Long Island, N. Y., on February 14, after a short illness, at the age of 74. Immigrating to the United States from Germany when 16, his first job was in a Chicago freight office where he acquired a life-long interest and enthusiasm for the railroad business. When, in 1890, Mr. Lisman went to Wall street he was already an expert on the subject and soon attracted wide attention with an analysis of the Richmond & West Point Terminal financing. As president and chairman of the board of the Lisman Corporation of New York he has been an important figure in scores of railroad reorganizations.

In addition to his active financial interest in the carriers Mr. Lisman was a thorough student of all the roads' problems, especially those of the short lines, and has contributed many articles to the *Railway Age* on the subject of consolidation, rates, etc. He was president, Chicago, Springfield & St. Louis; chairman of the board, Jacksonville & Havanna and a director, Alabama, Tennessee & Northern.

Keeshin Notes Get I. C. C. O.K.

Mahaffie raps majority okay of financing—"holding company" precedents recalled

With an expression of doubt that a list of "financial feats" with which holding companies formerly "astonished the world" would turn up an achievement "more remarkable than this," Interstate Commerce Commissioner Mahaffie dissented from the recent decision wherein a commission majority conditionally authorized Keeshin Freight Lines, Inc., to issue $2,850,000 in promissory notes to provide advances to associate companies and working capital. The majority's approval of the application was based on the fact that Keeshin had set up its proposed refinancing plan so that the notes would be purchased by its present creditors or stockholders; and the condition attached to the grant of authority stipulates that each note shall bear a notation to the effect that it has been authorized for issue to the original payee and is not valid if reissued, sold or otherwise disposed of to other than such original payee.

Among the prospective purchasers is the Baltimore & Ohio's affiliate, the New York Transit & Terminal Co., Ltd., "which owns approximately 12 per cent of the applicant's founders' stock, and $150,000 principal amount of the series-C debentures which are to be exchanged for the Series III notes."

Commissioner Mahaffie, whose views were subscribed to by Commissioners Miller and Splawn, agreed that the condition imposed "will be a protection to possible innocent purchasers in the future;" but he added that "it is, of course, in no way a substitute for the findings we are required to make." The latter was a reference to the provisions of the Motor Carrier Act's section 214 which, the dissenting commissioner understands, was designed to "prevent the issuance of unsound securities." Neither does Commissioner Mahaffie think that the commission's responsibility is lessened by the fact that the notes are expected to be taken by the Standard Oil Company of New Jersey, Socony-Vacuum Oil Company, Yellow Manufacturing Acceptance Corporation, a subsidiary of General Motors, the Baltimore & Ohio "and various other purchasers."

"To be able to get the approval of a regulatory body to a project for financing the operating deficits of subsidiaries by the issuance of the fixed interest obligations of a holding company which is itself in a precarious condition and to sell those securities to the reputedly wise, is clearly an achievement of a high order," Mr. Mahaffie asserted. Previously he had commented upon the disposition of the prospective purchasers to take the securities, having this to say: "It may be said that such concerns and the others so far undisclosed who are to take the securities are able to look out for their own interests and need no assistance from us. The Baltimore & Ohio, during the period when it

was approaching bankruptcy so closely that it had to seek relief from its own creditors, put about $400,000 into this enterprise. It is expected to make additional advances. Perhaps it may be assumed that the Baltimore & Ohio was not merely seeking a safe place for the investment of its funds, but what profit it did expect does not appear on this record. Neither is it clear what motive induced concerns selling oil and supplies, equipment and services to the companies in the group to invest heavily in the paper of this applicant, nor to agree now to add so largely to the investments heretofore made. Yet we find commercial enterprises ready to pay money for securities that they undoubtedly know are of dubious value as investments."

Meanwhile there was, of course, a majority report while another point of view was expressed in Chairman Eastman's concurring opinion to which Commissioner Caskie subscribed. Commissioner Patterson did not participate. The chairman thought the interests involved should be given a chance to work out their plan, the alternative to which would be bankruptcy proceedings.

As the majority report explains, the $2,850,000 in notes would be issued in three series, including $1,250,000 series I, $1,200,000 series II and $400,000 series III. The latter two would be exchanged par for par for two series of outstanding debentures, while the Series I notes would be issued at par for cash, part of the proceeds being advanced to Keeshin subsidiaries and the remainder retained by the parent corporation. After citing income statements which show respective deficits of $78,423, $81,741 and $19,162 for 1937, 1938 and the first 11 months of 1939, the commission expresses the view that estimates of future prospects "appear tinged with optimism." Nevertheless it goes on to say that the prospective purchasers of the notes are familiar with the motor-carrier industry and with the Keeshin system. "If they are desirous of assisting applicant in its present situation," it adds, "we feel they should be permitted to do so."

Chairman Eastman pointed out that Keeshin is the largest motor-carrier system in the country, adding that its creation "without any adequate forethought or realization of the difficulties which would be encountered" provides "an object lesson useful in the problem of motor carrier integration." As the chairman viewed it, the proposed note issue was "essentially a refunding operation." He was quite unable to see how the public interest could be threatened by issuance of the notes in accordance with the terms of the commission's authorization. The bankruptcy alternative, he thought, is pertinent to the B. & O. situation. The latter's chance of saving all or some of its investment in Keeshin are better under the proposed refinancing plan than they would be if Keeshin were to resort to bankruptcy proceedings, Mr. Eastman added.

"The essence of this case," the chairman says in closing, "is that the system has been forced into debt by adversity but appears to be making good progress toward recovery. The proposed issue of notes is substantially a refunding operation to be financed by those who have a direct interest in saving the property. No public interest will be endangered by giving them a chance."

Budd and Eastman to Address Conference Board

On February 29 at the Waldorf Astoria Hotel, New York, the National Industrial Conference Board will devote one of its series of monthly meetings (in which a complete survey of the American enterprise system is being presented) to a discussion of railroads and public utilities. At the evening session (7:30 p. m.) speakers will be Chairman Joseph B. Eastman of the I. C. C., President Ralph Budd of the Burlington, and President C. W. Kellogg of the Edison Electric Institute.

In the afternoon (3 p. m. to 6) separate "round table" sessions will be held on utilities and railroads. At the latter, the discussion will be introduced with addresses by J. W. Barriger, chief examiner, Railroad division, R. F. C.; E. H. Leslie, chairman of the Railroad section, Investment Bankers' Association; and F. E. Lyford, trustee, N. Y. O. & W. J. G. Lyne, assistant to editor, *Railway Age*, will preside.

The sessions are not open to the general public, being restricted to firms and individuals affiliated with the Conference Board, and their invited guests.

Claims Men to Meet May 21-23

The Freight Claim division of the Association of American Railroads will hold its annual session for 1940 in Chicago, May 21 to 23, inclusive.

Railroad Veterans to Convene October 12 and 13

The 1940 convention of the United Associations of Railroad Veterans will be held at the Hotel Buena Vista, Biloxi, Miss., on October 12 and 13.

Status of R. F. C. Rail Loans

The monthly financial statement of the Reconstruction Finance Corporation as of January 31, showed loans to railroads (including receivers) of $670,631,461 and repayments of $216,437,529.

Fire Destroys K. C. S. Buildings

The general office building, storehouse, freight car shops, mill room and wheel shop of the Kansas City Southern at Pittsburg, Kan., were completely destroyed by fire on January 18.

Switching Charges at Jamestown, N. Y.

Examiner Burton Fuller has recommended in a proposed report that the Interstate Commerce Commission find justified a proposed increase from $3.47 to $6.93 per car in the charge for terminal switching service which the Erie performs for the Jamestown, Westfield & Northwestern at Jamestown, N. Y.

Included in the evidence in this case (I. & S. No. 4629) are three cost studies offered in turn by the Erie, the J. W. & N. and the commission's Bureau of Statistics. Appendices to the proposed report summarize these studies.

Baggage Agents to Convene October 22-24

The American Association of General Baggage Agents will hold its annual meeting for 1940 at Hollywood Beach, Fla., October 22 to 24, inclusive. The hotel has not yet been selected.

Tenerowicz on House Interstate Commerce Committee

Representative Rudolph G. Tenerowicz, Democrat of Michigan, has been elected to the vacancy on the House committee on interstate and foreign commerce created by the death of Representative John A. Martin, Democrat of Colorado.

I. C. C. Passenger Section Chief Dies

L. C. Morris, chief of the Passenger Section of the Interstate Commerce Commission's Bureau of Traffic, was found dead on February 12 in his Washington, D. C., home where he had been overcome by dense smoke fumes from a burning divan. He was 53 years old.

Time for Answers in Anti-Trust Suit is Extended

The District Court of the United States for the District of Columbia has extended until February 26, the time in which the Association of American Railroads, its officers and directors, and 236 member roads may file answers in the anti-trust suit brought by the Department of Justice.

Club Meetings

The Eastern Car Foreman's Association will hold its annual New York dinner and entertainment on February 29, at the Hotel Commodore, New York. The entertainment for the evening will be arranged by May Johnson of the Music Corporation of America.

Senate Passes Independent Offices Measure

The Senate has passed and sent to conference the Independent Offices Appropriation bill, H. R. 7922, which carries, among other things, the appropriation for the Interstate Commerce Commission for the fiscal year ending June 30, 1941. The Senate made no change in the commission's figure, keeping it at $9,058,750.

Frisco Gets Truck Lines

Purchase of operating rights and property of Reddish Truck Service of West Plains, Mo., and of the Blake Truck Line of Truman, Ark., by the Frisco Transportation Company, affiliate of the St. Louis-San Francisco, has been approved conditionally by the Interstate Commerce Commission, Division 5. Also, the commission has received from Joint Board No. 91, composed of John H. Page of Arkansas and

B. R. Gillespie of Missouri, a proposed report recommending approval of Frisco Transportation's application for a common-carrier bus certificate for a route between Arbyrd, Mo., and Leachville, Ark.

Thompson Heads Motor Bureau's Atlanta Office

Lewis G. Thompson has been appointed by the Interstate Commerce Commission as district director in charge of the Bureau of Motor Carriers' Atlanta, Ga., office. He succeeds Frank P. Morgan who resigned because of illness. Mr. Thompson became connected with the Bureau in June, 1936, as district supervisor, having previously for 18 years been on the staff of the Florida Railroad Commission.

Fruit Growers Express to Operate Fitch Rail-Highway System

H. B. Spencer, president, Fruit Growers Express, has announced organization of the National Fitch Company, to be jointly owned by its subsidiary, the National Car Company, and Motor Terminals, Inc., developers of the Fitch system of co-ordinated rail and highway transportation. Motor Terminals is assigning all patent assets covering equipment for the service to the new company, which will be the exclusive sales agency for the system, and National Car will supply and operate all rolling-stock and devices. Motor Terminals retains its identity for terminal operations at Cincinnati, Ohio.

Rock Island Affiliate Gets Trucking Certificate

The Interstate Commerce Commission, Division 5, has conditionally authorized the Rock Island Motor Transit Company, affiliate of the Chicago, Rock Island & Pacific, to operate common-carrier trucking services over specified routes between Dallas, Tex., and Fort Worth, including service at certain intermediate points on the line of the Chicago, Rock Island & Gulf, and Euless, Tex. The conditions attached to the grant of authority are the five which the commission has been applying in cases involving railroads or their affiliates to insure that the highway operations will be auxiliary to or supplemental of rail service.

O'Mahoney Addresses Washington Traffic Club

Senator Joseph C. O'Mahoney, Democrat of Wyoming, and chairman of the Temporary National Economic Committee, was the speaker at the thirty-fourth annual banquet of the Traffic Club of Washington, D. C., which was attended by some 500 members and guests on February 8 at the Mayflower Hotel. Floyd F. Crabbe, general agent for the Chicago, Burlington & Quincy, and the retiring president of the club, presided at the dinner and introduced Senator O'Mahoney.

Among those at the head table were Joseph B. Eastman, chairman of the Interstate Commerce Commission; Robert H. Hinckley, chairman of the Civil Aeronautics Authority; Rear Admiral Emory S. Land, chairman of the United States Maritime Commission; J. J. Pelley, president of the Association of American Railroads, and Ted V. Rogers, president of the American Trucking Associations, Inc.

P. R. R. Gets $803,566 For 1920 Pittsburgh Slide Damage

The Pennsylvania has received payment of $803,566 from the city of Pittsburgh, Pa., to satisfy claims for damages resulting from the Bigelow boulevard landslide which occurred 20 years ago. The railroad's claim lay dormant for nearly 16 years; then took two years to run through the courts. It has taken still another two years for the judgment, recorded two years ago, to be satisfied. The landslide was caused principally by the failure of a retaining wall which the city built in connection with the construction of a boulevard on the top of a high bluff overhanging the P. R. R. main line about one mile east of the Union station. For a number of days earth moved over the eight tracks of the line like a glacier defying the efforts of eight steam-shovels to keep the right-of-way open.

I. C. C. Income and Balance Sheet Compilation for November

The Interstate Commerce Commission last week made public its latest compilation of selected income and balance sheet items, showing November's net income of the Class I roads at $33,003,556, and that for last year's first eleven months at $57,259,998, as reported previously by the Association of American Railroads and noted in the *Railway Age* of February 3, page 254. The foregoing compare with a November, 1938, net income of $7,555,005 and

SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 133 Reports (Form IBS) Representing 138 Steam Railways

(Switching and Terminal Companies Not Included)

TOTALS FOR THE UNITED STATES (ALL REGIONS)

For the month of November 1939	For the month of November 1938	*Income Items*	For the eleven months of 1939	For the eleven months of 1938
$70,345,666	$49,692,168	1. Net railway operating income	$526,963,159	$323,731,774
17,090,183	12,374,431	2. Other income	128,617,604	126,466,839
87,435,849	62,066,599	3. Total income	655,580,763	450,198,613
2,037,882	1,885,253	4. Miscellaneous deductions from income	21,380,853	21,791,146
85,397,967	60,181,346	5. Income available for fixed charges	634,199,910	428,407,467
		6. Fixed charges:		
11,319,210	11,908,765	6-01. Rent for leased roads and equipment	129,313,342	122,734,219
39,930,405	39,496,409	6-02. Interest deductions	†435,017,767	†436,039,064
131,664	208,593	6-03. Other deductions	1,458,961	2,334,292
51,381,279	51,613,767	6-04. Total fixed charges	565,790,070	561,107,575
34,016,688	8,567,579	7. Income after fixed charges	68,409,840	*132,700,108
1,013,132	1,012,574	8. Contingent charges	11,149,842	11,143,709
33,003,556	7,555,005	9. Net income‡	57,259,998	*143,843,817
16,728,618	16,665,330	10. Depreciation (Way and structures and Equipment)	185,161,172	185,259,519
4,330,721	2,758,783	11. Federal income taxes	30,514,982	16,202,883
		12. Dividend appropriations:		
34,341,829	16,199,129	12-01. On common stock	87,283,440	61,946,183
4,097,839	2,262,088	12-02. On preferred stock	18,514,703	12,705,938

Selected Asset Items	Balance at end of November 1939	Balance at end of November 1938
13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)	$625,554,518	$650,815,331
14. Cash	$602,439,561	$470,913,026
15. Demand loans and deposits	27,957,796	11,424,799
16. Time drafts and deposits	29,875,826	19,627,780
17. Special deposits	77,575,197	50,487,603
18. Loans and bills receivable	2,873,016	1,195,757
19. Traffic and car-service balances receivable	68,822,198	59,760,575
20. Net balance receivable from agents and conductors	54,004,103	47,349,897
21. Miscellaneous accounts receivable	130,201,171	127,755,034
22. Materials and supplies	310,732,250	318,619,870
24. Rents receivable	1,474,158	1,527,140
25. Other current assets	8,354,839	6,956,663
26. Total current assets (items 14 to 25)	$1,343,122,048	$1,140,801,783
23. Interest and dividends receivable	28,811,933	25,183,639
Selected Liability Items		
27. Funded debt maturing within 6 months§	$184,980,249	$179,013,964
28. Loans and bills payable¶	$232,801,255	$243,867,060
29. Traffic and car-service balances payable	88,071,140	78,457,612
30. Audited accounts and wages payable	259,746,621	227,484,745
31. Miscellaneous accounts payable	61,616,978	64,928,464
32. Interest matured unpaid	934,543,158	795,261,999
33. Dividends matured unpaid	1,522,026	1,668,448
34. Funded debt matured unpaid	799,243,775	628,607,424
35. Unmatured dividends declared	49,154,230	24,236,523
36. Unmatured interest accrued	106,280,388	108,044,772
37. Unmatured rents accrued	31,361,656	32,086,424
38. Other current liabilities	28,119,156	23,508,087
39. Total current liabilities (items 28 to 38)	$2,592,460,383	$2,228,151,558
40. Tax liability (Account 771):		
40-01. U. S. Government taxes	$71,754,724	$54,873,689
40-02. Other than U. S. Government taxes	146,310,422	147,683,479

* Deficit or other reverse items.

† Represents accruals, including the amount in default.

‡ For 99 railways not in receivership or trusteeship the net income or deficit was as follows: November, 1939, $36,688,149; November, 1938, $16,893,391; 11 months 1939, $152,918,254; 11 months 1938, $1,630,516.

§ Includes payments which will become due on account of principal of long-term debt (other than that in Account 764, Funded debt matured unpaid) within six months after close of month of report.

¶ Includes obligations which mature not more than 2 years after date of issue.

NET INCOME OF LARGE STEAM RAILWAYS WITH ANNUAL OPERATING REVENUES ABOVE $25,000,000

(Switching and Terminal Companies Not Included)

Name of Railway	Net income after deprec. For the eleven months of 1939	Net income after deprec. For the eleven months of 1938	Net income before deprec. For the eleven months of 1939	Net income before deprec. For the eleven months of 1938
Alton R. R.	* $939,418	*$1,485,172	* $703,688	*$1,202,865
Atchison, Topeka & Santa Fe Ry. System¶	6,534,450	6,208,907	17,380,149	17,178,680
Atlantic Coast Line R. R.	701,792	* 1,284,351	2,598,840	631,557
Baltimore & Ohio R. R.	* 1,354,273	*12,891,991	5,220,129	* 6,207,286
Boston & Maine R. R.	389,906	* 4,844,323	1,788,577	* 3,370,556
Central of Georgia Ry.†	* 2,448,405	* 2,768,365	* 1,668,462	* 1,983,010
Central R. R. of New Jersey‡	* 2,413,803	* 3,786,624	* 1,128,500	* 2,488,904
Chesapeake & Ohio Ry.	24,928,876	19,115,024	32,484,647	26,721,589
Chicago & Eastern Illinois Ry.‡	* 1,132,443	* 1,451,801	* 578,738	* 897,576
Chicago & North Western Ry.‡	* 8,584,576	*14,442,585	* 4,035,131	* 9,803,944
Chicago, Burlington & Quincy R. R.	2,607,924	2,699,847	7,381,202	7,372,568
Chicago Great Western R. R.‡	* 82,097	* 1,151,494	409,216	* 655,767
Chicago, Milwaukee, St. Paul & Pacific R. R.‡	*14,099,884	*17,177,410	* 8,792,973	*11,907,565
Chicago, Rock Island & Pacific Ry.‡	* 7,781,959	*10,807,038	* 4,024,016	* 6,978,439
Chicago, St. Paul, Minneapolis & Omaha Ry.	* 2,077,805	* 2,507,419	* 1,547,483	* 1,969,848
Delaware & Hudson R. R.	1,691,961	* 439,649	2,616,817	517,040
Delaware, Lackawanna & Western R. R.	* 559,124	* 3,777,219	1,669,999	* 1,516,869
Denver & Rio Grande Western R. R.‡	* 4,011,235	* 5,420,448	* 2,900,388	* 4,322,020
Elgin, Joliet & Eastern Ry.	2,058,068	* 14,819	2,928,291	900,730
Erie R. R. (including Chicago & Erie R. R.)§	* 1,071,867	*10,287,804	2,280,231	* 6,867,185
Grand Trunk Western R. R.	* 2,509,947	* 4,960,996	* 1,438,489	* 3,927,777
Great Northern Ry.	5,627,310	207,993	9,013,892	3,618,984
Illinois Central R. R.	1,566,814	591,898	7,535,694	6,550,032
Lehigh Valley R. R.	* 285,860	* 3,587,874	1,652,519	* 1,605,425
Long Island R. R.	* 1,697,394	* 1,848,000	* 620,217	* 769,542
Louisville & Nashville R. R.	6,430,764	2,347,582	10,404,996	6,320,329
Minneapolis, St. Paul & Sault Ste. Marie Ry.‡	* 5,000,695	6,047,829	* 3,883,989	* 4,922,452
Missouri-Kansas-Texas Lines	* 3,223,579	* 3,590,346	* 2,079,194	* 2,372,091
Missouri Pacific R. R.‡	*12,501,145	*13,970,844	* 8,494,530	* 9,960,675
New York Central R. R.ø	382,834	*20,413,440	14,937,312	* 5,651,378
New York, Chicago & St. Louis R. R.	2,115,926	* 1,351,223	3,550,456	163,473
New York, New Haven & Hartford R. R.‡	* 3,224,426	*11,538,268	* 135,730	* 8,411,615
Norfolk & Western Ry.	27,911,638	17,831,213	32,554,839	22,407,075
Northern Pacific Ry.	* 3,428,720	* 7,345,649	* 333,242	* 4,232,683
Pennsylvania R. R.	26,406,088	8,452,161	50,854,722	31,832,903
Pere Marquette Ry.	176,267	* 2,336,706	2,331,807	* 138,193
Pittsburgh & Lake Erie R. R.	2,769,436	1,518,651	4,824,676	3,575,439
Reading Co.	4,208,256	2,563,327	7,061,437	5,439,725
St. Louis-San Francisco Ry.‡	* 8,217,317	*10,823,331	* 5,410,807	* 7,962,150
St. Louis Southwestern Lines‡	* 1,898,209	* 1,171,466	* 1,330,162	* 602,190
Seaboard Air Line Ry.†	* 5,736,513	* 7,271,701	* 3,759,456	* 5,399,542
Southern Ry.	3,847,640	* 2,116,423	7,044,028	708,703
Southern Pacific Transportation System‖	5,017,652	* 7,267,977	12,188,577	266,126
Texas & Pacific Ry.	809,359	1,165,342	1,912,315	2,261,997
Union Pacific R. R. (including leased lines)	14,534,799	14,799,063	21,367,440	21,500,782
Wabash Ry.†	* 3,641,707	* 5,927,023	* 1,669,904	* 3,955,501
Yazoo & Mississippi Valley R. R.	.....	.....	453,661	488,052

* Deficit.
† Report of receiver or receivers.
‡ Report of trustee or trustees.
§ Under trusteeship, Erie R. R. only.
¶ Includes Atchison, Topeka & Santa Fe Ry., Gulf, Colorado & Santa Fe Ry., and Panhandle & Santa Fe Ry.
ø Includes Boston & Albany, lessor to New York Central R. R.
‖ Includes Southern Pacific Company, Texas & New Orleans R. R., and leased lines. The report contains the following information: "Figures reported above for Southern Pacific Transportation System exclude offsetting debits and credits for rent for leased roads and equipment, and bond interest, between companies included therein. Operations for 1939 of separately operated solely controlled affiliated companies (not included in above statement), resulted in a net deficit of $470,531 for the month and $5,888,064 for the period. These results include $211,172 for the month and $2,322,893 for the period, representing interest on bonds of such companies owned by Southern Pacific Company not taken into income by Southern Pacific Company and, therefore, not included in the 1939 income results for the System reported above. The combined results for 1939 for Southern Pacific Transportation System and separately operated solely controlled affiliated companies amounted to a net income of $519,855 for the month and $1,452,481 for the period."

a net deficit of $143,843,817 for 1938's first 11 months.

Eighty-one Class I roads reported net incomes for November, while 49 reported net deficits; in November, 1938, there were 68 net incomes and 61 net deficits. The consolidated statement and that showing the net incomes or net deficits of roads having operating revenues above $25,000,000 are shown in the accompanying tables.

Ask I. C. C. to Reconsider Naval-Stores Rate Decision

Rehearing and reconsideration of the recent decision in the Naval-Stores-to-Gulf-Ports case have been asked in petitions filed with the Interstate Commerce Commission by the Evans Motor Freight Line, principal competitor of the railroads for the traffic involved, and others. The latter include the Mobile (Ala.) Chamber of Commerce and the Southern Naval Stores Company.

The commission's decision in this proceeding docketed as No. 27571 and embracing I. & S. Docket No. 4265, was reviewed in the *Railway Age* of February 3, page 254; and the order lifting the suspension on the railroad tariffs was set up to become effective February 5.

Service to Ship Companies Creditable Under Pension Act

Two steamship companies no longer extant were during their existence employers under the Railroad Retirement Act and service rendered to each is creditable toward an annuity, the general counsel of the Railroad Retirement Board recently ruled. The companies were the San Francisco and Portland Steamship Company of California (August 26, 1904), to March 18, 1912), and its successor, the San Francisco and Portland Steamship Company of Utah (March 18, 1912, to October 31, 1924).

The steamship companies were ruled in as companies owned and controlled by covered carriers and as companies engaged in the operation of equipment and facilities and the performance of services in connection with the transportation of passengers and property by railroad. Both companies were, during the entire periods of their corporate existence, indirectly owned and controlled by the Union Pacific, the Board's announcement said.

Modifies Relief in Tennessee River Case

The Interstate Commerce Commission has modified previous findings in Fourth Section Application No. 17413, Petroleum Products to Tennessee River Points, so as to accord Pearson, Ark., the same relation of rates as El Dorado, Ark. The original report in this proceeding, as noted in the *Railway Age* of December 9, 1939, page 898, brought forth that separate expression wherein Chairman Eastman suggested that "it would be more economical for the government not to construct and maintain the waterways but instead to use an equivalent amount of money as a subsidy to the railroads in exchange for lower rates."

Southwest-Official Divisions

Issuing a third supplemental report in the case involving divisions of joint rates between Southwestern and Official territories, the Interstate Commerce Commission has modified previous findings so as to require retroactive adjustment of divisions on petroleum traffic from points in Kansas and Missouri to points in Indiana. Also, the divisions heretofore prescribed for retroactive application on petroleum via St. Louis, Mo., are now prescribed also for retroactive application via certain other upper Mississippi river crossings. Reparation was awarded in both instances.

The case is the No. 25390 proceeding, the original report in which was reviewed in the *Railway Age* of August 26, 1939, page 320.

Switching Charges at Richmond

Examiner Horace W. Johnson has recommended in a proposed report that the Interstate Commerce Commission find not justified increases proposed by the Southern in connection with switching charges at Richmond, Va. The suspended tariffs proposed a charge of $6.93 per car and the examiner would have the commission order them cancelled without prejudice to the filing of new schedules naming a charge not in excess of $5.90 per car. Present charges range from $1.98 to $4.95 per car.

The same report recommends that the commission find justified a proposed increase from $4.95 to $6.93 per car in the charge for switching from the terminal of the Eastern Steamship Lines to the point of interchange with connecting lines at Richmond.

Involved in the case (docketed as I. & S. No. 4619) are cost studies prepared by the Southern and by the commission's Bureau of Statistics. Explanations of these studies are set forth in the proposed report's appendices which also include comprehensive definitions of "switching, switching elements, and switching service." The latter were included, Examiner Johnson said in a footnote, because "it is apparent from the record in this proceeding that a clear-cut conception of switching and its

constituent parts is necessary for a proper understanding of this and other commission reports in which switching is described."

November Bus Revenues 2.6 Per Cent Above 1938

Class I motor carriers of passengers reported November, 1939, revenues of $8,516,203 as compared with $8,298,031 in November, 1938, an increase of 2.6 per cent, according to the latest compilation prepared by the Interstate Commerce Commission's Bureau of Statistics from 148 monthly reports representing 149 bus operators. Passengers carried meanwhile increased eight per cent, from 10,685,115 to 11,537,433.

	Passenger Revenue		Passengers Carried	
	November, 1939	November, 1938	November, 1939	November, 1938
New England Region	$432,552	$413,230	992,830	989,605
Middle Atlantic Region	1,308,339	1,234,858	2,887,320	2,525,230
Central Region	1,472,210	1,384,795	1,868,011	1,733,486
Southern Region	1,925,960	1,910,073	2,379,123	2,124,975
Northwestern Region	335,705	326,893	290,148	293,908
Mid-Western Region	702,033	705,479	528,994	542,365
Southwestern Region	1,092,817	1,118,783	1,178,517	1,192,536
Rocky Mountain Region	96,383	111,238	76,666	84,547
Pacific Region	1,150,204	1,092,682	1,335,824	1,198,463

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special party service, is given in the accompanying table.

January Employment 6.12 Per Cent Above 1938

January railway employment, with 988,870 at work, was on a 6.12 per cent higher level than in January, 1939, although there was a 2.05 per cent decline under the mid-December figure, according to the Interstate Commerce Commission's compilation based on preliminary reports. The index of railway employment, based on the 1923-1925 average as 100 and corrected for seasonal variation, stood at 56.8 for January, as compared with 58 for December and 54.4 for January, 1939.

January employment in all groups was above that of the previous year's comparable month, the largest increases being the 11.31 per cent rise in maintenance of equipment and stores employees and the 7.6 per cent increase in the train and engine service group. Meanwhile, all groups were under mid-December, except executives, officials and staff assistants, and yardmasters, switch-tenders and hostlers, up 0.31 per cent and 0.39 per cent, respectively. The largest decrease under December was the 5.63 per cent drop in the number of employees in the maintenance of way and structures group.

I. C. C. Probe of Warehousing and Storage at North Atlantic Ports

Warehousing and storage charges and practices of railroads at 13 North Atlantic ports, other than New York, will be investigated by the Interstate Commerce Commission in a proceeding instituted by an order dated February 5 and made public on February 12. The investigation, docketed as No. 28420, was instituted by the commission upon its own motion after consideration of a petition filed on behalf of the Port of New York Authority for further investigation into practices "at other North Atlantic ports." The practices at New York have been previously under investigation in one phase of the commission's general Ex Parte 104 probe of practices of railroads affecting operating revenues and expenses.

Ports named in the commission's order are: Portland, Me., Boston, Mass., New London, Conn., Providence, R. I., Albany, N. Y., Philadelphia, Pa., Baltimore, Md., Wilmington, Del., Camden, N. J., Trenton, Norfolk, Va., Portsmouth, and Newport News. "In view of the magnitude of the proceeding, the situation at Baltimore, Md., will be first investigated," a notice from I. C. C. Secretary W. P. Bartel said. The order set no date for the opening of hearings.

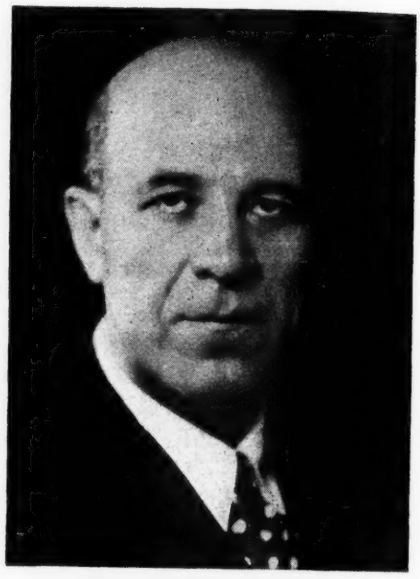
Ask Commission Not to Reopen Southern Governors' Case

The complainants in the so-called Southern Governors' rate case, recently decided in favor of the South by the Interstate Commerce Commission, have asked the commission to deny various petitions of Northern railroads and other interests seeking a reopening of the case. The complainants' petition states that the motions for a reopening present only issues that have already been briefed, orally argued and fully considered by the commission, and that no purpose could be served in reopening the case.

At the same time, the Southern railroads told the commission: "We are in substantial accord with the final result produced by the decision as affecting the particular commodities to which the findings relate, though not in accord with all of the reasoning in support of the majority decision, particularly with respect to expressions of the majority regarding cost of transportation in the South as compared with cost of transportation in the North. We were not and are not in accord with, and do not accept, the soundness or correctness of some of these expressions, notwithstanding that they appear as mere expressions—far short of being any exact, specific or definite findings as to cost—necessarily so because of the incomplete and unsatisfactory state of the record on that subject, as well as the method in which that subject is dealt with by the majority throughout the report."

Buckwalter's Inventions Cited in "Modern Pioneer" Award

Tracy V. Buckwalter, vice-president in charge of engineering and research, Timken Roller Bearing Company, whose designation by the National Association of Manufacturers as a "Modern Pioneer" at a dinner in Cleveland, Ohio, on February 7 was reported in last week's *Railway Age*, was granted some 60 patents during his 16 years of service with the Pennsylvania as employee in the Altoona electric shops (1900-1906) and in charge of automotive engineering, office of general superintendent motive power (1906-1916), and about 100 additional patents during his connection with Timken as chief engineer (1916-1922) and vice-president.



Tracy V. Buckwalter

His achievements during direct railroad service centered about the development of electric shop and platform trucks, storage battery locomotives and equipment for rail-highway service. In 1906, when but 26 years of age, he invented the first electric storage-battery industrial truck to replace hand-pushed trucks in handling material in the Altoona shops. A few years later he designed the now-familiar electric baggage-handling vehicle with four-wheel steering and double-end folding platform control, followed by a drop frame type of truck for low-level loading. While attached to the motive power department, Mr. Buckwalter developed a self-contained, rubber-tired power-unit with four-wheel drive and steering, equipped with air-brake connections suitable for hauling standard railroad freight cars over paved streets in industrial areas in Baltimore, Md., and Jersey City, N. J. This type of vehicle was especially designed to handle cars on curves of short radii and replaced antiquated operation by horse-teams. In 1914, when store-door delivery was actively considered by the road, he developed specially-designed motor trucks for rail-highway service. Unfortunately, pick-up and delivery service was discontinued shortly thereafter due to legal complications.

As a Timken officer, Mr. Buckwalter's activities have been concentrated on the application and manufacture of tapered roller bearings. After successfully adapting such bearings to varied industrial machines and highway vehicles, he tackled the severe operating and maintenance problems confronting railroad installation. He joined in designing Timken's locomotive, the "1111", in 1929 equipped with roller bearings on all axles and "loaned"

it to the carriers for demonstration. Since then roller-bearing equipped locomotives have been the majority of new motive power. Mr. Buckwalter was also attracted to the problem of track damage from the unbalanced inertia forces of locomotive reciprocating parts and succeeded in designing die-forged, alloy-steel members for piston, piston-rod and cross-head assembly having about one-half the conventional weight.

Freight Car Loading

Carloading reports were so delayed this week that the Association of American Railroads was unable to announce the total for the week ended February 10 by the time this issue went to press.

As reported in last week's issue, the revenue freight car loadings for the week ended February 3 totaled 657,004 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings

For Week Ended Saturday, February 3

Districts	1940	1939	1938
Eastern	148,103	130,736	119,455
Allegheny	139,196	112,444	105,921
Pocahontas	47,434	38,008	40,682
Southern	100,729	91,910	92,947
Northwestern	75,821	66,700	67,044
Central Western	96,907	89,389	90,276
Southwestern	48,814	43,940	48,415
Total Western Districts	221,542	200,029	205,735
Total All Roads	657,004	573,127	564,740
Commodities			
Grain and grain products	32,080	29,541	32,282
Live stock	10,914	11,371	11,450
Coal	158,635	129,269	129,394
Coke	12,163	7,871	6,459
Forest products	31,374	25,525	26,257
Ore	10,087	9,062	6,447
Merchandise l.c.l.	146,788	146,142	148,002
Miscellaneous	254,963	214,346	204,449
February 3	657,004	573,127	564,740
January 27	649,488	590,459	553,176
January 20	645,822	586,656	570,233
January 13	667,713	582,244	580,740
January 6	592,392	529,371	552,568
Cumulative Total, 4 Weeks	3,212,419	2,861,857	2,821,457

In Canada.—Carloadings for the week ended February 3 totaled 50,607, an increase of 530 over the previous week and 10,060 over last year, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada:	Total Cars Loaded	Total Cars Rec'd from Connections
Feb. 3, 1940	50,607	25,467
Jan. 27, 1940	50,077	24,341
Jan. 20, 1940	49,416	23,603
Feb. 4, 1939	40,547	20,826
Cumulative Totals for Canada:		
Feb. 3, 1940	235,533	119,136
Feb. 4, 1939	198,854	104,305
Feb. 5, 1938	224,868	111,430

Shop Crafts to Settle Jurisdictional Disputes Themselves

Plans for settling jurisdictional disputes among themselves without interruption of service and without calling upon railway management to intervene were put into effect on February 15 by six of the seven shop-craft unions affiliated with the Railway Employees' Department, American Federation of Labor. The electrical workers is the group which did not subscribe to the plan which was announced last week by B. M. Jewell, president of the Railway Employees' Department, A. F. of L., and hailed in "Labor," organ of the railroad brotherhoods as "an important step toward peaceful adjustment of jurisdictional disputes between shopcraft unions on the railroads."

Mr. Jewell explained that the new machinery is the result of 13 years of effort by the executive council of the department. "Essence of the plan," he said, "is that employers shall not be called upon, nor permitted, nor requested to settle disputes between the unions. Nor shall an employer's work be interfered with because of jurisdictional disputes. It is the right and obligation of the organizations involved to settle such controversies among themselves."

The former practice has been for general chairmen on the roads to try to settle disputes as they arose, referring those which they were unable to adjust to the heads of their unions. Now, a definite procedure is set up whereby an unsettled dispute will proceed from the system representatives to the chief executives of the unions. The latter may assign union officials to investigate and hold hearings on the ground. If such officials cannot agree on a decision, provision is made for selection of a referee who will cast the deciding vote. Referees may not be connected with the organizations involved, but must have a knowledge of the disputed work. Adjustments reached are binding upon unions which are parties to the agreement, but they are not to affect jurisdictional rights outside the railroad field.

Railroads are being advised of the plan in uniform letters being sent out by each system federation involved. Among other things the letter urges the railroads "to agree with us on this program, recognizing that you will thus make a substantial contribution to improving the relations and increasing the cooperation between the management and the employees. . . ."

Railroadians Razz Railroads

The first annual dinner of the Railroadians of America, which was held at the Holley Hotel, New York, on Thursday evening, February 8, assumed many of the aspects of a "gridiron dinner". The walls of the dining room were decorated with A. A. R. posters, the wording on which, however, had been neatly and artistically changed so that they could hardly be distinguished from the originals. While considerable wit was reflected in new wordings, they were also rather relentless in attacking some of the weak spots in the railroads' public relations endeavors. The dinner was followed by a program which included a two-act skit, entitled, "Nothing Ever Happens on Sunday". The scene was laid in an enginehouse office and the audience was kept in spasms of laughter.

Barbed shafts of satire were shot at the weaknesses in railroad operation and administration, as well as in public relations efforts. It is only fair to say that the Railroadians were just as severe on themselves, when they occasionally reversed the process and "turned the heat" on their own members.

That this group, like most other fan organizations, is enamoured of the steam locomotive, was indicated by the pointed references to the Diesel-electric and the presentation of a "Diesel attendant", artistically garbed in white raiment, uncrumpled and unsoiled, who apparently was intended to be entirely decorative rather than useful. While not so intended, this could, of course, be interpreted in more than one way. Through tactful maneuvering in the seating arrangements, prominent representatives of public relations departments of railroads who were present, were so placed that there was no possibility of their missing any of the wit and satire which was directed at them. The presiding officer, as well as one of the stars in the performance, was Thomas T. Taber.

November Accident Statistics

The Interstate Commerce Commission's completed statistics of steam railway accidents for the month of November, 1939, now in preparation for the printer, will show:

Item	Month of November		11 months ended with November	
	1939	1938	1939	1938
Number of train accidents	571	513	5,493	5,210
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	144	139	2,165	2,153
Injured	137	158	2,167	2,308
Passengers on trains:				
(a) In train accidents*				
Killed	...	...	13	52
Injured	31	56	671	434
(b) In train-service accidents:				
Killed	1	1	11	14
Injured	159	138	1,563	1,659
Travelers not on trains:				
Killed	1	1	10	9
Injured	74	58	745	663
Employees on duty:				
Killed	50	41	462	440
Injured	1,581	1,412	15,418	14,631
All other nontrespassers:†				
Killed	157	150	1,356	1,416
Injured	584	595	4,886	5,020
Total — All classes of persons:				
Killed	353	332	4,017	4,084
Injured	2,566	2,417	25,450	24,715

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

† Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers*, were as follows:

Number of accidents	378	381	3,009	3,050
Persons:				
Killed	139	136	1,236	1,295
Injured	444	454	3,464	3,535

Rail Labor Asks Senators to Oppose St. Lawrence Seaway

Members of the Senate have recently received from executives of six railroad labor organizations a letter calling upon them for assistance in opposing the St. Lawrence seaway which has been revived by the Administration. Along with the letter each senator received a copy of an analysis of the St. Lawrence project which had been submitted to the labor organizations by Grand Chief Alvanley Johnston of the Brotherhood of Locomotive Engineers, who has been railroad labor's representative at recent conferences of interests

opposing the waterway. The letter to the senators was signed by D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen, J. A. Farquharson, national legislative representative of the Brotherhood of Railroad Trainmen, A. F. Stout, national legislative representative of the Brotherhood of Maintenance of Way Employees, John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers, W. D. Johnson, vice-president and national legislative representative of the Order of Railway Conductors, and D. C. Cone, vice-president and national legislative representative of the Brotherhood of Railroad Signalmen of America.

These labor executives told the senators that a reading of the accompanying analysis "should convince you that the approval of this project would be unfair to the taxpayers, the railroads and their employees." The analysis briefly describes the project, comments on the cost estimates and discusses the waterway's prospective traffic. With reference to the effect on other transportation agencies it has this to say:

"Whatever may have been the fact when the agitation for the St. Lawrence waterway was undertaken in 1919, there is today no inadequacy of transportation facilities. Billions have been expended by public and private agencies in the building of roads and the modernization and expansion of railroads during the past 20 years. Our facilities for land transportation are fully adequate to provide efficient service for almost any conceivable volume of business. That this is not merely wishful thinking was conclusively demonstrated during September, October, and November of 1939, when the country experienced the most rapid increase in freight traffic in its history without any serious shortages of equipment, terminal congestions, or delays in transit.

"The essential agencies of transportation are even now in a difficult financial condition. The federal government has extended its credit and will doubtless continue to do so to assist the rail lines in their struggle for existence. A large part of the indebtedness of our federal, state and local governments has resulted from the construction of modern highways. Under such circumstances, it is worse than inconsistent that the United States undertake further expenditures to add to our oversupply of transportation facilities.

". . . . Every foreign ship entering or leaving an American lake port with a cargo would mean the elimination of trains at about the rate of 1,000 tons per train and every elimination of the operation of a train would reduce wage payments to the highest type of labor in the world. Each such reduction would be a blow to the economic stability of the United States."

Drive-Yourself Service Soon Available in West

Drive-yourself automobile service will be made available to railroad passengers in 150 cities in 30 western states by eleven western railroads by May 1. Gradual establishment of the service will start within a month. The eleven carriers include the Chicago, Burlington & Quincy; the Chicago & Eastern Illinois; the Chicago, Milwaukee, St. Paul & Pacific; the Chicago & North Western; the Chicago, St. Paul, Minneapolis & Omaha; the Great Northern; the Illinois Central; the Northern Pacific; the Chicago, Rock Island & Pacific; the Atchison, Topeka & Santa Fe; and the Union Pacific.

The plan will operate through an independent organization, Railway Extension Inc., Chicago, which is incorporated in Nebraska for $500,000 by Edward O'Shea, president, and R. H. Rogers of Lincoln, Neb. It will own and operate 2,000 automobiles at certain points and has enlisted the co-operation of drive-yourself companies in providing the service at other points. Railway Extension will also act as the clearing house for automobile reservations.

Under the plan, the railroad ticket agent will accept the automobile reservation and forward it to Railway Extension, Inc. It or one of the authorized drive-yourself companies will deliver the automobile to the passenger at his destination station upon the presentation of his identification card or upon a deposit of $20.

Rental, which includes gasoline, oil, and personal property as well as liability insurance, will be standard, and will be paid upon the return of the automobile. The rate will be 8 cents a mile for short distances and 6½ cents a mile for greater mileages of 1,000 miles or more with the following minimums.

1 hour—10 miles
12 hour-day—75 miles
24 hour-day—135 miles
1 week—350 miles
24 hour day after first week—50 miles—$4

The 150 cities in which this service will be available after May 1 are: Birmingham, Ala.; Little Rock, Ark., and Hot Springs; Phoenix, Ariz.; Bakersfield, Cal., Berkeley, Fresno, Los Angeles, Oakland, Pasadena, Riverside, San Bernardino, San Diego, San Francisco, Santa Ana and Stockton; Colorado Springs, Col., Denver, Fort Collins, Greeley, Pueblo and Trinidad; Boise, Idaho, and Pocatello; Aurora, Ill., Cairo, Champaign, Chicago, Danville, East Dubuque, Freeport, Galesburg, Joliet, Kankakee, Kewanee, La Salle, Moline, Ottawa, Peoria, Peru, Quincy, Rockford, Rock Island, Springfield, and West Frankfort; Evansville, Ind., Terre Haute, and Vincennes; Burlington, Iowa, Cedar Rapids, Clinton, Davenport, Des Moines, Dubuque, Fort Dodge, Iowa City, Keokuk, Mason City, Muscatine, Ottumwa, Sioux City and Waterloo; Hutchison, Kan., Salina, Topeka, and Wichita; Paducah, Ky.; Baton Rouge, La., Monroe, Shreveport, and New Orleans; Albert Lea, Minn., Duluth, Mankato, Fairbault, Minneapolis, Rochester, St. Paul, and Winona; Escanaba, Mich.; Clarkdale, Miss., Greenville, Greenwood, Gulfport, Hattiesburg, Jackson, Meridian, Natchez, and Vicksburg; Hannibal, Mo., Kansas City, St. Joseph, and St. Louis; Butte, Mont., Great Falls, Helena, and Missoula; Grand Island, Nebr., Hastings, Lincoln, McCook, North Platte, and Omaha; Fargo, No. Dak., Grand Forks, and Minot; Enid, Okla., Oklahoma City, and Tulsa; Albuquerque, N. M.; Portland, Ore.; Aberdeen, So. Dak., Huron and Sioux Falls; Jackson, Tenn., and Memphis; Amarillo, Tex., Beaumont, Dallas, El Paso, Fort Worth, Galveston, Houston, Lubbock, San Angelo, and Wichita Falls; Ogden, Utah, and Salt Lake City; Spokane, Wash., Yakima, Seattle, Tacoma, Wenatchee, and Walla Walla; Green Bay, Wis., La Crosse, Madison, Manitowoc, Milwaukee, Racine, and Wausau; Casper, Wyo., and Cheyenne.

"Eagles" in Service March 10

The new Missouri Pacific streamlined, aluminum-alloy six-car passenger trains, the Eagles, built by the American Car & Foundry Company, St. Louis, Mo., will be placed in service by that road between St. Louis, Mo., Kansas City and Omaha, Neb. on March 10, on a schedule of 9 hr. east-

Roy A. Hunt, Right, Aluminum Company of America President, Congratulates John W. Lawler, Center, American Car and Foundry Company District General Manager, Whose St. Charles Plant Craftmen Built the Missouri Pacific Lines New Aluminum-Alloy Streamlined Flyer, "The Eagle," as P. J. Neff, the Railroad's Traffic Department Head, Looks On. Picture Taken at Preview Party, Missouri A. A.

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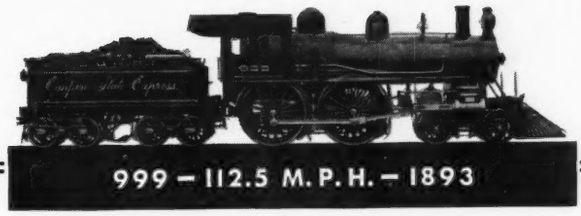
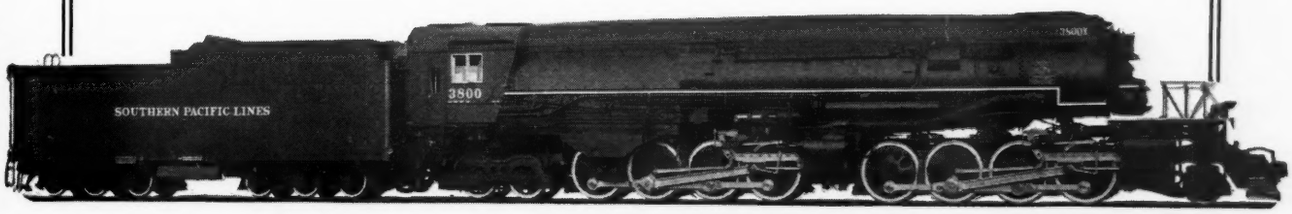


They're both fast...



...BUT IT TAKES "MODERN POWER" TO HAUL TODAY'S LOADS PROFITABLY

Old "999" was fast, but today's traffic demands call for high hauling capacity as well as high speed. That is why railroads are ordering "Modern Power".

The above photograph illustrates an example of "Modern Power" designed for high-speed freight and passenger service in mountainous territory.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED **INCORPORATED, LIMA, OHIO**

bound and 9⅛ hr. westbound for the 478 mile run. For the 279 miles between Kansas City and St. Louis, the time will be 5 hr. both eastbound and westbound. The train will leave St. Louis at 8:45 a. m. and arrive in Kansas City at 1:45 p. m. and Omaha at 5:55 p. m. Returning it will leave Omaha at 8:40 a. m. and Kansas City at 12:40 p. m. and arrive in St. Louis at 5:40 p. m.

The first train was delivered by the American Car & Foundry Company on February 6, while the second will be delivered about February 27. The first train will be exhibited over the system prior to its inauguration.

Hails Thompson As "New Genius"

(*Continued from page 333*)

his aforementioned remarks about the ousted Ashburn having "outgrown his usefulness" and the Department's finding of a need for "some new genius." After a "very thorough and long search," it appears, "the proper gentleman for the position" was found in the person of Mr. Thompson, whose selection "was passed on by the highest authorities we have, including the Secretary of Commerce." Mr. Thompson devotes all his time to I. W. C. as does Administrative Assistant A. C. Mills, formerly an assistant to the Secretary of Commerce.

Among other things, Col. Johnson said, the Commerce Department found that I. W. C. had about $700,000 in checking accounts drawing no interest. A quarter million dollars of that has been transferred to interest-bearing government bonds where $125,000 due on a dividend from the subsidiary Warrior River Terminal Co. will also be invested. Also, Mr. Johnson referred to the recent transfer of I. W. C. offices to St. Louis, a change which contemplates keeping in Washington "one individual who is fairly familiar with the work of the Corporation, and with Congress, so that we can quickly get any information that the House or the Senate or any other government agency will want."

After submitting the financial statements showing the 1939 deficit, Mr. Bartley was asked about the outlook for 1940. He replied that he did not know, adding: "It depends on the status of the rivers. For instance, since September up to date we have practically suspended operations on the Missouri River. We had three boats on the Missouri during all of September, and they could not move. We have two boats still there. The lower Mississippi has been lower than for many years. From Greenville up to St. Louis the interruptions have been so great that tows have been delayed, and naturally the cost has been very much increased. The same applies to the upper Mississippi, but not to as great an extent, except in spots."

Answering questions from Representative Kerr, Democrat of North Carolina, regarding I. W. C. labor troubles Mr. Bartley told of the strike which lasted from April 24 to May 17 last year, and which Mr. Johnson said he understood had cost the Corporation $500,000. When Mr. Bartley said the strike was "primarily for a closed shop and more money," Representative Caldwell, Democrat of Florida, put it in other words as follows: "You have government employees who struck for the privilege of unionizing."

"That has been the difficulty," Mr. Bartley replied. "We have never known exactly whether they are government employees or not. I do not think anybody has ever ruled on it." Whereupon Representative Rabaut, Democrat of Michigan, came up with: "Well, it is government money; that is a cinch. I do not believe it would ever have existed without the money." Next, Mr. Bartley told Representative Caldwell that I. W. C. has generally tried to pay wages "in line with the prevailing rates for similar work."

Turning to the question of taxes, Representative Kerr brought out I. W. C.'s immunity therefrom; although the Warrior River Terminal Company pays Alabama state taxes. Asked specifically about income taxes, Mr. Bartley said that I. W. C. pays none. He added that "of course, the railroads have not paid very much income tax lately," seemingly indicating a belief that lack of income on which to pay income taxes has in some manner placed railroads on par in that connection with their tax-exempt competitors.

Among the data submitted by Mr. Bartley were tabulations showing the rates of compensation of each regular I. W. C. employee on the first day of each year, 1936 to 1940. While he was in active military service General Ashburn got the salary of a major general, plus a $2,500 expense account from I. W. C.; on January 1, 1939, having retired from the army, he was being paid at the rate of $15,000 a year, broken down in a footnote as salary, $10,000, "emoluments," $5,000. On January 1, 1940, President Thompson was being paid at the rate of $10,000 a year; Mr. Bartley, $7,200. Next to Mr. Thompson the highest salary was the $8,500-a-year being paid to Vice-President J. S. Powell, who was recently promoted from the position of comptroller. The grand total of salaries in effect January 1 was on the basis of $610,700 a year.

Circuit Court Voids Rutland Wage Cuts

The second United States Circuit Court of appeals in New York, in a decision rendered on February 13, denied the right of the federal district court at Vermont to direct the receiver of the Rutland to either withhold a percentage of its employees' wages or to authorize a wage cut which is pending before the National Mediation Board. The decision, which is wholly favorable to the plaintiff standard railroad labor organizations, has two important implications: (1) a court may not permit a railroad, even though it be in receivership, to withhold a portion of employees' wages in order to continue operation; and (2) all wage changes must be negotiated according to the provisions of the Railway Labor Act.

In effect, it places the matter of both wage *deductions* and *reductions* on the Rutland back in the hands of the National Mediation Board, which discontinued proceedings in April, 1939, because the employees' organizations refused to negotiate the question of a wage *cut* announced by Receiver L. G. Morphy on December 9, 1938, until the legality of previous wage *deductions* effective July 30, 1938, was determined in the circuit court case. In discussing the deadlock just decided, the Board had declared that it would withhold further conferences "until such time as the legal and property rights of the parties that are in question in the pending suit [i. e. the case here decided, docketed as Burke vs. Morphy] are determined by the courts." In its decision, the circuit court pointed out that its reversal of the orders of the lower court clears the way for the Mediation Board to resume negotiations respecting the receiver's notice dated December 9, 1938, of his intention to reduce wages on a sliding scale averaging 17 per cent.

The background of the case centers about two distinct actions of the Vermont district court. One dated July 12 and July 30, 1938, directed the Rutland receiver to withhold an average of 17 per cent of all employees' wages in order to conserve the road's resources, the withheld funds not to constitute a prior lien as a receiver's operating expenses. The second, dated June 17, 1939, ordered the receiver to *reduce* wages on the same sliding scale, effective June 30. The latter order referred back to the *receiver's* notice of a wage reduction posted on December 9, 1938, which was taken up in routine matter by the National Mediation Board, and then "pigeon-holed" because of the employees' insistence upon a prior court test of the previous wage deductions.

With respect to the first order, the circuit court held that the court's direction was in violation of the Railway Labor Act and that the wages withheld pursuant to it constitute receivership expenses and take precedence over mortgage bonds as claims on the property. With respect to the second order, the appeals court held that the district court acted improperly in issuing it while the wage reduction was still pending before the Mediation Board and that the lower court had no authority to so act until formally notified by the Board of the termination of its efforts.

U. S. Supreme Court Orders

The United States Supreme Court, at its February 12 meeting, adopted a rarely-used procedure and ordered reargument on February 26 of a case testing the constitutionality of a Pennsylvania law prohibiting the transportation of automobiles in convoys which carry a vehicle on top of the cab of the truck. The Court heard oral argument on the case last week, but apparently decided that it needed additional information before it decided the case.

Truckers in Pennsylvania and neighboring states have obtained injunctions barring the enforcement of the act, contending that the law would reduce the number of automobiles that truck-trailers can carry and would eventually force them out of the business. The Interstate Commerce Commission has also asked that the law be declared invalid as an invasion of its safety

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STARTING EFFORT

at 214° of the crank

leading crank

LOCOMOTIVE ALONE

18,000 LBS.

following crank

leading crank

LOCOMOTIVE AND

THE LOCOMOTIVE BOOSTER*

30,000 LBS.

following crank

It's the Booster that makes the 67% difference!

Starting power depends entirely upon the position of the cranks at the instant of starting. In a specific case, the power of only one cylinder is available for starting during 60.4% of the crank circle. At 214 degrees of the crank circle the starting effort of the locomotive is at one of the four minimum points. This means that the start must be made with one cylinder or slack must be taken to place the cranks in a more favorable position. » » » Booster power is needed at these low points. In this particular case the Booster gives an increase of 67% to the starting drawbar pull of the locomotive . . . ***the equivalent of 2 additional driving axles.*** Don't take the chance of your locomotive stopping at the most inefficient positions over half the time. Be prepared for *any* crank position. Install Locomotive Boosters and be sure of smooth, prompt starts . . . at all times and in any tight place.*Trade Mark Reg. U.S. Pat. Off.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK
CHICAGO
MONTREAL

regulatory powers conferred upon it by the Motor Carrier Act.

In another case listed as Z. M. McCarroll, Commissioner of Revenues of the State of Arkansas vs. Dixie Greyhound Lines, Inc., the Court held that a state may not impose a tax on gasoline carried in the tanks of motor buses moving interstate. The tax is not valid, the Court said, under the rule that a state may place a levy on interstate carriers for the privilege of using its highways.

In this case Arkansas had enacted a statue which prohibits the entry into the state of any automobile or truck "carrying over 20 gallons of gasoline in the gasoline tank of such automobile or truck or in auxiliary tanks of said trucks to be used as motor fuel in said truck or motor vehicles until the state tax thereon (6½ cents per gallon) has been paid."

The Dixie Greyhound Lines operates from Memphis, Tenn., across Arkansas to St. Louis, Mo., and because it does not purchase gasoline in Arkansas, became subject to the law. The Arkansas revenue officer threatened enforcement of the act, and the company sought an injunction in the Federal district court against the threatened action, but was refused such relief. The Circuit Court of Appeals for the Eighth Circuit took the opposite view and granted the injunction, which action the Supreme Court upheld in the instant case.

Mr. Justice McReynolds delivered the opinion of the Court, while Mr. Justice Black, Mr. Justice Frankfurter, and Mr. Justice Douglas dissented in a written opinion.

Future of R. R. Investment Viewed at Savings Bank Journal Forum

What the legislature, regulatory bodies and railroad management may expect of railroad investors in the future and what steps they might take to receive a favorable response from the latter was the topic of discussion of a forum sponsored by the "Savings Bank Journal" in Washington, D. C., on January 18 and reported in detail publicly for the first time in the February issue of that periodical. Entitled "Exploring the Railroad Outlook," the forum lasted from 5 p. m. to past 11 p. m. and was carried on by 23 expert observers of the railroad industry from within and without, whose names follow:

H. G. Parker, vice-president, Standard Statistics Company
J. W. Barriger, 3rd, chief, Railroad division, R. F. C.
C. L. Bergmann, R. W. Pressprich & Co.
Henry Bruere, president, Bowery Savings Bank
J. H. Cheston, vice-president, The Philadelphia Savings Fund Society
W. R. Coe, Jr., Harriman, Ripley & Co., Inc., and chairman executive committee and vice-president, Virginian
P. N. Cristal, director railroad bond research, Northwestern Mutual Life Insurance Company
C. S. Guthrie, assistant to secretary, Department of Commerce
C. A. Halleck, member, House Committee on Interstate & Foreign Commerce
M. W. Harrison, publisher, "Savings Bank Journal"
August Ihlefeld, Jr., president, Savings Banks Trust Company
E. H. Leslie, chairman, Committee on Railroad Securities, Investment Bankers Association
Charlton MacVeagh, Jackson & Curtis
C. D. Mahaffie, member, I. C. C.
A. M. Massie, vice-president, New York Trust Company
J. E. Oldham, railroad consultant
J. J. Pelley, president, A. A. R.
W. F. Place, vice-president (finance), New York Central
D. B. Robertson, president, Brotherhood of Locomotive Firemen & Enginemen
C. B. Upham, Deputy Comptroller of the Currency
F. W. Walker, vice-president, Northwestern Mutual Life Insurance Company
B. K. Wheeler, chairman, Senate Interstate Commerce Committee
E. K. Wheeler, Washington editor, "Savings Bank Journal"

One of the most interesting viewpoints expressed was that of Mr. Oldham who said concerning future investor behavior: "I think that confidence in railroad investments will return only when investors are reasonably assured that it is going to be possible in the future as in the past to determine and maintain rates largely on a basis of 'service at cost' with all that the term implies, rather than on the basis of expediency made necessary by the intensive competition of the newer forms of transportation, which has so generally prevailed since the depression. It seems to me fair to say that if progress is made in this direction, there will be a corresponding return of confidence, for it is only on the basis of reasonable and adequate income that railroad securities will resume their former place in the investment markets."

Mr. Coe probably typified the railroad investor of today when he said: "There is an atmosphere of utter despair about the railroad securities as a class. They are not attractive to institutions or the individual holder and I do not see any buying until they have some ray of hope that most of these problems are eventually going to be solved by the government, that labor is going to be co-operative, and that the railroads are going to do a good job on their own part to increase their efficiency."

Senator Wheeler's remarks were most optimistic in character both as regards the future of the industry in particular and prospects of remedial transportation legislation in particular. And at several points in the discussion he was led to exclaim enthusiastically of the new place which the railroads hold in the public esteem, declaring on one occasion that "I would ten times rather put money into a prosperous railroad than in a prosperous utility . . . the tendency on the part of everybody is to help the railroads and the tendency respecting utilities is to kick them."

Speaking of maintenance versus interest, Mr. Massie contributed the opinion that: "If it is a question of a choice between borrowing money to pay junior bond interest or under-maintaining the property, I would much prefer to see roads go into receivership and keep a good transportation system and a strong underlying mortgage position. I am bitterly opposed to the paying of interest on junior bonds, either through under-maintenance of property or letting the service run down or by borrowing money. I think it is better for the road to face the facts of possible overcapitalization or under-earning power just as quickly as possible in order to keep the structure intact as a good property and to preserve unimpaired the position of underlying securities as a safeguard for conservative investors."

In the consideration of voluntary reorganizations it was Mr. MacVeagh's thought "that interested parties ought to be smart enough to figure out the priority of liens without having to go through receivership and therefore the latest inventions of the Lehigh Valley and B. & O. readjustment of fixed charges are a lot better and easier on everyone, except the lawyers, than receivership."

When the functions of the Reconstruction Finance Corporation came up for treatment, Mr. Bruere expressed the hope that the Corporation might "evolve" out of its studies of the railroad problem "a constructive program to which statesmen, as well as politicians and investors, might subscribe." Mr. Barriger, in answer to a question whether the R. F. C. would be willing to underwrite further capital adjustment plans such as that proposed for the Boston & Maine, stated that it would "if the carrier had a capitalization which would lend itself to that type of re-adjustment." He added: "I think it also should be pointed out that in 1935 Congress limited additional railroad loans to a total which might be made out of a $350,000,000 revolving fund. There is still a substantial balance in that fund, but the B. & M. plan requires a large sum of money and unless that limit is raised, it might not be possible to assist in many more."

Equipment and Supplies

LOCOMOTIVES

THE WABASH has placed orders for two 660-hp. Diesel-electric switching locomotives, one with the American Locomotive Company and one with the Electro-Motive Corporation.

THE NORTHERN PACIFIC has ordered one Diesel-electric locomotive of 660 hp. from Baldwin Locomotive Works and three Diesel-electric locomotives, each of 1000 hp., from the Electro-Motive Corporation. These locomotives with the three Diesel-electrics of 660 hp. purchased from the American Locomotive Company as announced in the *Railway Age* of January 27, are a part of this road's 1940 rail and equipment purchase program, which will total $8,500,000.

FREIGHT CARS

THE DENVER & RIO GRANDE WESTERN is inquiring for 10 caboose cars.

THE NEW YORK, CHICAGO & ST. LOUIS is inquiring for 10 container cars with a capacity of 100 tons, including the containers, and for 50 covered hopper cars of 70 tons' capacity.

THE ATLANTIC COAST LINE is rebuilding 1,000 box cars in its shops at Waycross, Ga. These cars were originally built with steel frames and the company is now applying steel sides and U-section truck sides.

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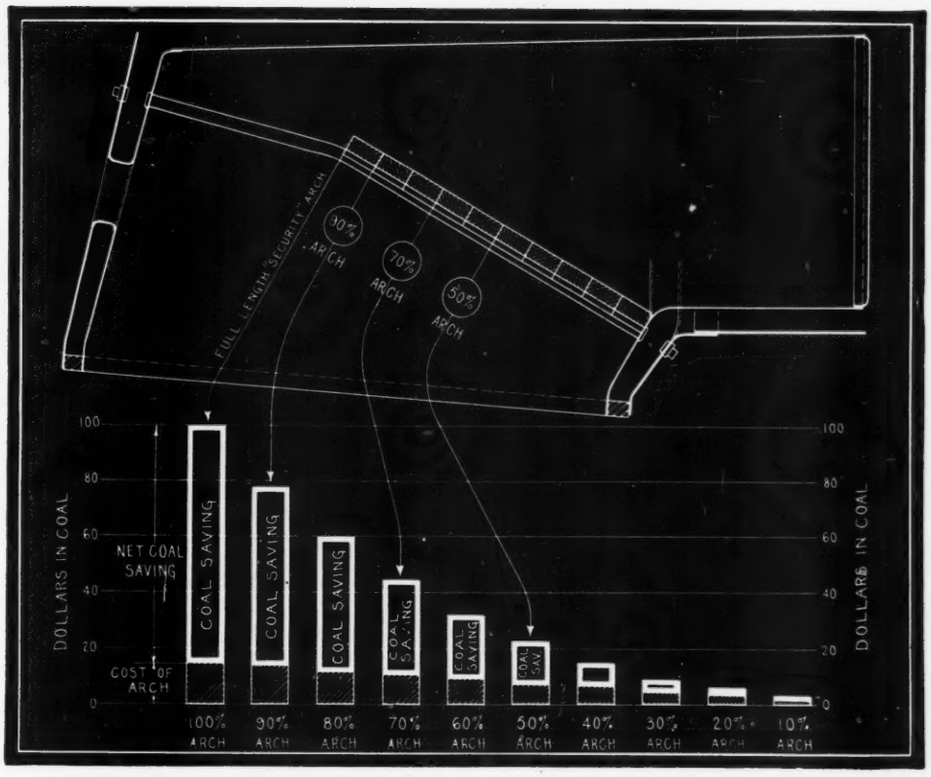


THE EFFECT OF ABBREVIATED ARCHES ON FUEL SAVING

LET THE ARCH HELP YOU SAVE

With the emphasis being placed on saving every railroad dollar, the locomotive Arch becomes increasingly important.

Regardless of the amount of traffic handled, the locomotive Arch saves enough fuel to pay for itself ten times over.

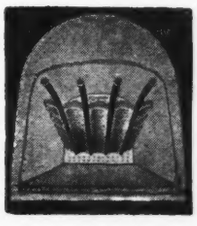
Be sure that every locomotive leaving the roundhouse has its Arch complete with not a single brick nor a single course missing.

In this way, you will get more work for each dollar of fuel expense. Skimping on Arch Brick results in a net loss to the railroad.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

Supply Trade

M. H. Kuhl, district manager of industrial sales for the **Timken Roller Bearing Company,** Canton, Ohio, has been appointed assistant manager of industrial sales, succeeding **S. D. Partridge,** whose appointment as manager of industrial sales was announced in the *Railway Age* of January 13.

D. H. McAdams, who has been appointed mid-western division manager of the **Joyce-Cridland Company,** Dayton, Ohio, with headquarters in Chicago, as reported in the *Railway Age* of February 10, served as a salesman in mid-Atlantic states for the Burner Manufacturing Company from 1928 to 1931. On the latter date he resigned to become district manager of automotive sales of the Ingersoll-Rand Company, with headquarters at Philadelphia, Pa. and in 1933 he was transferred to Chicago.

William K. Breeze, district sales manager at New York, of the **Jones & Laughlin Steel Corporation,** Pittsburgh, Pa., has been appointed Pacific Coast manager with supervision over the district offices at Los Angeles, Cal., San Francisco, and Seattle, Wash., with headquarters in Los Angeles. **John B. DeWolf,** district sales manager at Philadelphia, Pa., has been appointed district sales manager at New York, and **Herbert B. Spackman,** assistant district sales manager at Philadelphia, has been appointed district sales manager at Philadelphia.

Harold S. Brooks, assistant to vice-president and manager of sales of W. H. Miner, Inc., Chicago, has been appointed sales manager succeeding **William E. Robertson,** vice-president and manager of sales, whose death on January 31 was reported in the *Railway Age* of February 10. Mr. Brooks was born in Prescott, Ark., on February 10, 1893, and attended Lewis Institute, Chicago. In 1914 he entered the employ of the Van Dorn Coupler Company, Chicago, as private secretary to the president, and later worked in the mechanical and sales departments. During the World War he was in the U. S. Navy. In 1919 he returned to the Van Dorn Company as manager of its Chicago sales office, and later was promoted to general manager. In April, 1923, he entered the employ of W. H. Miner, Inc., serving in the testing laboratory and other branches of the mechanical department until 1927 when he entered the sales department of that company, later being made assistant to the vice-president and manager of sales.

Harold S. Brooks

OBITUARY

John B. Herman, sales engineer for the American Car & Foundry Company, with headquarters at St. Louis, Mo., died of pneumonia at the De Paul hospital in that city on February 7.

Orlando S. Keith, Chicago representative of the **Shippers' Car Line Corporation,** New York, (controlled by the American Car & Foundry Company), and at one time president and a director of the Chicago Tank Car Company, died suddenly of a heart attack in Chicago on February 13. Mr. Keith was born at Henry, Ill., on March 31, 1867, and entered railway service as a messenger boy on the Illinois Central at Loda, Ill., later serving as a telegraph operator, night chief operator at Chicago, chief clerk to the superintendent of car service, chief clerk to the superintendent of transportation, car distributor, chief clerk to the general superintendent of transportation, car accountant and general car distributor. On June 1, 1905, he was promoted to superintendent of transportation, with headquarters at Chicago. Mr. Keith left the Illinois Central on July 1, 1910, to become president of the Keith & Miller Lumber Company, and the following year organized and became president of the Keith Car Company. In 1928, he became president and a director of the Chicago Tank Car Company and after this company went out of existence, he became Chicago representative of the Shippers Car Line Corporation.

Colonel James Milliken, former superintendent of motive power of the Philadelphia, Baltimore & Washington, part of the Pennsylvania System, died on February 5, at the McGirk sanatorium, Philipsburg, Pa. James Milliken was born on February 19, 1865, at Newtown, Pa., and was educated at the University of Pennsylvania. He entered railway service on September 16, 1885, and subsequently served consecutively as a fireman on the Pittsburgh division of the Pennsylvania, machinist apprentice at the Altoona shops, machinist at the same shops and then from January, 1890, to June, 1891, as assistant road foreman of engines on the Philadelphia division. He then was transferred to the Pittsburgh division and in February, 1892, was appointed assistant master mechanic at the Altoona shops. From August, 1895, to March, 1899, Colonel Milliken served as assistant engineer of motive power on the Philadelphia, Wilmington & Baltimore, now the Philadelphia, Baltimore & Washington, then to August, 1900, as assistant engineer of motive power on the United Railroads of New Jersey division and later to January, 1903, as master mechanic at the Baltimore shops of the Northern Central. From June, 1903, to May, 1917, he was superintendent of motive power of the Philadelphia, Baltimore & Washington; all of the above service having been with the Pennsylvania System. Colonel Milliken entered the United States War Department in May, 1917, and in October of the following year was appointed colonel of engineers. While in the army he was in charge of the design, procurement, and production of railroad equipment for the American armies in France and at the end of the war the French Republic conferred upon him the rank of Officer de la Legion d' Honneur, for distinguished service. In 1919, he served as president of the Industrial Car Manufacturers' Institute and subsequently became president of the Pittsburgh Testing Laboratories, remaining in that position until his retirement in 1929. Colonel Milliken became a member of the New York Railroad Club in October, 1895, and served as its president for the year 1917. During 1931, he was identified with Eastern Air Transport, Inc., at Brooklyn, N. Y., a division of the North American Aviation, Inc.

Construction

CHICAGO & NORTH WESTERN and the CHICAGO, NORTH SHORE & MILWAUKEE.—A contract amounting to approximately $250,000 has been awarded Deckert & McDowell, Chicago, by the Board of Local Improvements of the Village of Winnetka, Winnetka, Ill., in connection with the 3½ million dollar grade separation project in that city, for the construction of one pedestrian bridge and six highway bridges over the tracks of these roads. A description of this project was published on page 966 of the *Railway Age* of December 31, 1938.

MAINE CENTRAL.—A contract amounting to approximately $27,500 was awarded the H. P. Cummings Construction Co., Ware, Mass., during the last quarter of 1939 for the construction of a new freight house and driveway at Lewiston, Me.

NEW YORK CENTRAL.—A contract has been awarded the Duffy Construction Corp., New York, for the necessary grading, drainage, etc., to be carried out at the New York Central's 30th Street yard, between W. 30th and W. 32nd streets, New York City. This work is being done in connection with the elimination of grade crossings.

SOUTHERN PACIFIC.—A contract amounting to $48,865 has been awarded F. Fredenburg, South San Francisco, Cal., by the Division of Highways of the State of California for the construction of a concrete and steel state highway bridge over the tracks of the Southern Pacific at Weed, Cal. The structure will consist of two 63-ft. and one 98-ft. steel girder spans on steel columns with concrete abutments and footings. The concrete deck will provide a clear roadway width of 26-ft. with two 3-ft. sidewalks. The total cost of this project will be $57,375.

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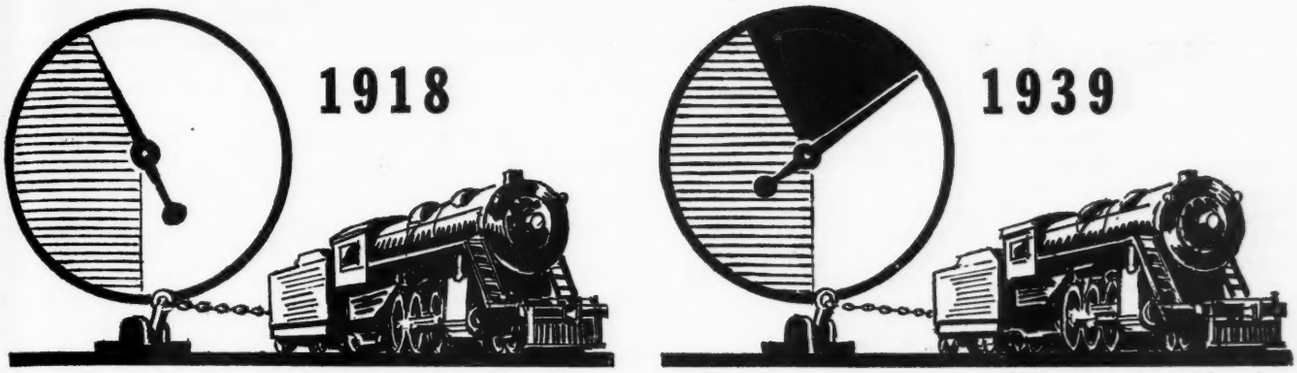

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1939-40— Locomotives are now designed for much higher operating requirements. The superheater best suited for these conditions . . . in practically every case . . . is the Type "E" design.

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ITEM	TYPE "A" Superheater	TYPE "E" Superheater	INCREASE	INCREASE Per Cent
Tube and flue heating surface	4,200 sq. ft.	4,641 sq. ft.	441 sq. ft.	10.5
Superheating surface	1,164 sq. ft.	2,088 sq. ft.	924 sq. ft.	79.3
Gas area	1,337 sq. in.	1,374 sq. in.	37 sq. in.	2.76
Steam area	51.3 sq. in.	67.06 sq. in.	15.76 sq. in.	30.7

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Financial

ATLANTIC COAST LINE.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon the following lines: From Bloomfield, Fla., to the end of the Okahumpka-Yalaha branch, one mile; and from Drivers, Va., to Beach Grove, 1.5 miles.

BOSTON & MAINE.—*Voluntary Plan of Exchange.*—W. S. Trowbridge, vice-president (finance and accounts), has announced that the first month of solicitation of assents to the road's voluntary plan of exchange has brought in assents of holders of more than 50 per cent of the bonds effected. The plan was put out to the public on January 4 and solicitation started on January 8. Since that time, the holders of more than $52,000,000 of the bonds have assented.

CHICAGO & NORTH WESTERN.—*Abandonment and Joint Operation.*—This company has asked the Interstate Commerce Commission for authority to abandon two segments of a line extending (1) from Carroll, Iowa, to Halbur, 7.6 miles, and (2) from Halbur, Iowa, to Manning, 6.7 miles. At the same time the company asked for authority to operate under trackage rights over a parallel line of the Chicago Great Western between these points.

COLORADO & SOUTHERN-FT. WORTH & DENVER CITY.—*R. F. C. Loan.*—Division 4 of the Interstate Commerce Commission, with Commissioner Porter dissenting, has approved loans of $619,500 to each of these companies by the Reconstruction Finance Corporation. The loans will be used to purchase new equipment and will be evidenced by equipment notes bearing interest at the rate of three per cent per year and maturing serially over a period of 10 years in annual installments of approximately equal amounts.

The proceeds will be used for the purchase by each company of a 4,000-hp. Diesel-electric, high-speed locomotive, one dining-lounge car, one mail-baggage car, and one combination baggage-passenger car at a cost of $376,000 for the locomotive and $243,500 for the cars. The two companies will use the new equipment, together with stainless-steel streamline coaches which they now have, to run two streamlined trains in daily overnight service between Denver, Colo., and Dallas, Tex.

Commissioner Porter took the position, as he has consistently in cases of this kind, that he cannot approve a loan for the full amount of the equipment. It is his belief that the R. F. C. should not loan more than 90 per cent of the purchase price.

DUE WEST.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Due West, S. C., to Donalds, 4.5 miles.

FORT DODGE, DES MOINES & SOUTHERN.—*Compensation.*—Division 4 of the Interstate Commerce Commission has ordered that C. H. Crooks and L. J. Dickinson be paid $12,000 and $6,000 yearly, respectively, for their services as co-trustees of this company during reorganization proceedings under section 77 of the Bankruptcy Act. At the same time Division 4 ordered that Walter R. Dyer be paid at the annual rate of $7,200 for his services as counsel to the trustees.

KANSAS CITY SOUTHERN. — *Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has further modified its orders of December 22, 1936 and November 14, 1939, so as to authorize the sale of $1,278,000 of this company's three per cent equipment trust certificates at 105 and accrued dividends, the proceeds to be invested in securities or property, in accordance with the provisions of the company's first mortgage and deed of trust dated April 2, 1900. The certificates will mature in annual installments of $213,000 on January 1 in each of the years from 1947 to 1952, inclusive. They have been sold at 105 and accrued dividends to Salomon Brothers & Hutzler, making the average annual cost to the company approximately 2.36 per cent.

LEHIGH VALLEY.—*Pledge of Securities.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to pledge and repledge from time to time to and including December 31, 1941, as a part of the collateral security for a three per cent promissory note in the amount of $5,691,666 to the order of the Manufacturers Trust Company, or for any short-term note or renewal thereof in whole or in part, all or any part of $14,000,000 of general consolidated mortgage five per cent bonds, $1,000,000 of general consolidated mortgage 4½ per cent bonds, $5,000,000 of Lehigh-Buffalo Terminal 4½ per cent first mortgage bonds, and $1,000,000 of Lehigh Valley Coal Company six per cent secured notes.

LOUISIANA & ARKANSAS.—*R. F. C. Financing.*—This company has asked the Reconstruction Finance Corporation to purchase $1,536,000 of three per cent equipment trust certificates. Details of the issue were given in last week's *Railway Age.*

MINNEAPOLIS & ST. LOUIS.—*Abandonment.*—This company would not be permitted to abandon a line extending from Aberdeen, S. Dak., to Leola, 29.6 miles, if the Interstate Commerce Commission adopts a recommended report of its Examiner J. S. Prichard. The examiner found that "the branch could be operated for several years without any unusual expenditures for maintenance and that rehabilitation to the extent contemplated by the applicant would be unwarranted in view of the potential traffic of the tributary territory".

MONTOUR.—*Notes.*—This company has been granted authority by Division 4 of the Interstate Commerce Commission to issue at par three unsecured promissory notes in the face amounts of $700,000, $420,000, and $140,000, the proceeds to be applied to the redemption, prior to maturity, of $1,260,000 of its first mortgage 50-year five per cent sinking fund gold bonds. The first note for $700,000 would bear interest at 2¼ per cent; the second for $420,000 at 3⅛ per cent; and the third for $140,000 at 3¼ per cent. They would be paid consecutively in semi-annual installments of $35,000 beginning on August 1, 1940 and on each February 1 and August 1, thereafter, to and including August 1, 1956.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE. — *Abandonment of Operation by Minnesota Northwestern Electric.* — The Minneapolis, St. Paul & Sault Ste. Marie and the Minnesota Northwestern Electric, respectively, have been granted authority by Division 4 of the Interstate Commerce Commission to abandon the line and the operation of the line extending from Thief River Falls, Minn., in an easterly direction to Goodridge, 18.7 miles.

NEW YORK CENTRAL.—*Acquisition.*—The Cleveland, Cincinnati, Chicago & St. Louis has been authorized to acquire further control of the Peoria & Eastern by purchase of additional shares of capital stock.

NORTHERN PACIFIC. — *Abandonment.* — This company has asked the Interstate Commerce Commission for authority to abandon its Green River branch, extending from engineer's station 294 plus 25 to engineer's station 744 plus 043, 8.7 miles, and 1.1 miles of spur and wye tracks, all in Kings County, Wash.

READING.—*Abandonment by the Catasauqua & Fogelsville.*—The Catasauqua & Fogelsville and the Reading, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a part of the so-called Breinigsville branch and the operation thereof, extending from a point approximately 2.1 miles west of Trexlertown, Pa., westerly to the end of the branch, 3.4 miles.

RIO GRANDE SOUTHERN.—*R. F. C. Loan.*—Division 4 of the Interstate Commerce Commission has reopened the case in Finance Docket No. 12519, an application of this company for a loan from the Reconstruction Finance Corporation in the sum of $40,000, for further consideration by the commission. Recently Division 4 denied the approval for the loan.

SKANEATELES. — *Abandonment.* — This company has asked the Interstate Commerce Commission for authority to abandon its entire line, extending from Skaneateles, N. Y., to Skaneateles Junction, five miles of main track and 1.8 miles of yard tracks and sidings.

SOUTHERN.—*Abandonment by the Atlantic & Danville.*—The Atlantic & Danville and the Southern, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a line and the operation of a line extending from Buffalo Junction, Va., to Buffalo-Lithia Springs, 3.9 miles.

SOUTHERN.—*Abandonment by the Atlantic & Danville.*—The Atlantic & Danville and the Southern, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a line and the operation of a line extending from Shoulders Hill, Va., easterly to the point at which the line crosses the line of the

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SOUTHERN PACIFIC. — *Abandonment.*—This company has been authorized to abandon a part of the so-called McKittrick branch, extending from McKittrick, Calif., to Olig, two miles.

TRENTON-PRINCETON TRACTION.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon its entire line, extending from Trenton, N. J., to Princeton, 12.6 miles, together with 0.6 of a mile of line extending from Trenton, N. J., to a bridge on the Delaware River.

TENNESSEE CENTRAL.—*Extension of R. F. C. Loan.*—This company has applied to the Interstate Commerce Commission and the Reconstruction Finance Corporation for a renewal for a period of five years ending April 1, 1945, of a note for $5,000,000, dated April 1, 1937, covering a loan from the R. F. C. due April 1, 1940.

Dividends Declared

Cincinnati, New Orleans & Texas Pacific.—5 Per Cent Preferred, $1.25, quarterly, payable March 1 to holders of record February 15.

Pittsburgh, Youngstown & Ashtabula. — Preferred, $1.75, quarterly, payable March 1 to holders of record February 20.

Average Prices of Stocks and Bonds

	Feb. 13	Last week	Last year
Average price of 20 representative railway stocks..	31.94	31.72	30.38
Average price of 20 representative railway bonds..	59.45	59.14	61.35

Railway Officers

EXECUTIVE

David M. Petty has been elected president of all the short-line railroad subsidiaries of Bethlehem Steel Corporation.

John W. Wheeler, who resigned as assistant chief engineer of the Burlington Lines, with headquarters in Chicago, on May 11, 1939, to take charge of contracting work for the Cities Construction Company, Hammond, Ind., has been appointed, effective February 15, executive assistant of the Burlington Lines, a newly created position, with headquarters at Chicago.

FINANCIAL, LEGAL AND ACCOUNTING

M. C. Smith, attorney for the Erie, has been promoted to assistant general attorney, with headquarters as before at Cleveland, Ohio.

A. J. Messersmith, auditor of the Chicago, Rock Island & Gulf, with headquarters at Fort Worth, Tex., has been appointed auditor of freight overcharge claims of the Chicago, Rock Island & Pacific, with headquarters at Chicago. His transfer is a result of the consolidation of the accounting offices of the two roads at Chicago.

Horace H. Powers, general attorney of the Central Vermont, with headquarters at St. Albans, Vt., has been appointed also general attorney of the Canadian National in the United States, with the same headquarters.

J. S. Fathman has been appointed assistant attorney for the Wabash, with headquarters at St. Louis, Mo., succeeding **R. B. Elster,** whose promotion to assistant general attorney was announced in the *Railway Age* of January 20.

Harry E. Boe, attorney for the Chicago, Rock Island & Pacific, has been promoted to general attorney, a newly created position, with headquarters as before at Chicago.

Harry E. Boe

Mr. Boe was born in Chicago in 1893 and graduated from the John Marshall Law School. He entered railway service in 1910 as a clerk in the law department of the Rock Island at Chicago, and in 1930 he was promoted to attorney, with headquarters at Chicago, the position he held at the time of his recent promotion.

Fred J. Buller, treasurer of the Central region of the Canadian National, with headquarters at Toronto, Ont., has retired on pension after 47 years of service. Mr. Buller, who was born January 30, 1875, began his career with the old Canadian Express, serving successively as messenger between Trenton, Ont., and Picton, on the old Central Ontario Ry.; Ottawa, Ont., and Rouse's Point, N. Y., on the Canada Atlantic; and Barrie, Ont., to Meaford, on the Grand Trunk. He was appointed clerk in the Toronto office in 1896, and two years later transferred to the Dominion Express as cashier in the Winnipeg (Man.) office. In 1901 he became timekeeper in the superintendent's office at Winnipeg. A year later he returned to Toronto, as cashier and paymaster of the Canadian Northern. He opened the first operating banking account for the Canadian Northern system in the East. With the formation of the Canadian National, Mr. Buller became successively assistant treasurer and regional treasurer and he assisted in taking over nearly all the railway group in the East and in the consolidation of the Canadian National and Canadian Express.

OPERATING

R. A. Dennis, assistant trainmaster, New York division of the Pennsylvania, has been transferred in the same capacity to the Wilkes-Barre division.

William H. Tobey, superintendent on the Canadian National, with headquarters at Prince Rupert, B. C., has been appointed general manager of the Pacific Great Eastern at Vancouver, B. C.

Trevor Wood, traveling car service agent on the Canadian Pacific at Winnipeg, Man., has been promoted to assistant superintendent at Wilkie, Sask., succeeding **N. A. Link,** whose transfer to Revelstoke, B. C., was announced in the *Railway Age* of January 27.

Walter Heide, whose promotion to superintendent of the Chicago Terminal division of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was announced in the *Railway Age* of February 10, was born in Chicago in 1886, and entered railway service in 1903 as a call boy on the Rock Island. He later served as a switch tender, yard clerk and yardmaster, and in 1933 he was promoted to trainmaster at Chicago, serving in that capacity until May, 1939, when he was promoted to acting superintendent of the Chicago Terminal division.

James A. Mercer, whose promotion to division superintendent on the Northern Pacific, with headquarters at Fargo, N. D., was announced in the *Railway Age* of February 3, was born at Shelbyville, Mo., on February 6, 1876, and entered railway service in March, 1893, as an agent on the Quincy, Omaha & Kansas City (controlled by the Chicago, Burlington & Quincy), at Dunlap, Mo. From June, 1896, to December, 1904, Mr. Mercer served with various roads in the West, including the Denver & Rio Grande Western, as cashier at Gunnison, Colo., and operator at Springville,

James A. Mercer

Utah; the Colorado & Southern, as agent at various points in New Mexico and Colorado; the Atchison, Topeka & Santa Fe, as agent at Socorro, N. M., and Los

Lunas; and the Oregon Short Line (now the Union Pacific), as operator at Blackfoot, Idaho. In October, 1905, he went with the Northern Pacific as an operator at Livingston, Mont., and was later appointed successively car distributor, chief yard clerk, chief dispatcher, dispatcher and train rules examiner at various points on the Northern Pacific in Montana. During the War he entered the U. S. Army as a first lieutenant in the 63rd Engineers, later being transferred and promoted to the rank of major in the Transportation corps. In August, 1919, he returned to the Northern Pacific as a dispatcher in Montana, and in April, 1924, he was promoted to trainmaster. Mr. Mercer was further advanced to assistant superintendent at Billings, Mont., in August, 1927, and six years later he was transferred to Fargo. His promotion to superintendent was effective February 1.

J. T. Stanford, division superintendent on the Illinois Central, with headquarters at Waterloo, Iowa, has been appointed assistant superintendent at Champaign, Ill., a newly created position. **C. F. Duggan,** trainmaster at Champaign, has been promoted to superintendent at Waterloo, succeeding Mr. Stanford, and **G. J. Willingham,** trainmaster at Council Bluffs, Iowa, has been transferred to Champaign, relieving Mr. Duggan. **T. J. Casey,** road foreman of engines on the Kentucky division, has been promoted to trainmaster at Council Bluffs, replacing Mr. Willingham. **H. H. Buck,** night yardmaster at Jackson, Miss., has been promoted to trainmaster at Jackson in charge of the Cairo district, a newly created position, relieving **A. W. Ellington,** who continues as trainmaster at Jackson, of a portion of his jurisdiction.

William W. Judson, whose promotion to general manager of the Lines East of Livingston, Mont., of the Northern Pacific, with headquarters at St. Paul, Minn., was announced in the *Railway Age* of February 3, was born at Rochelle, Ill., on March 24, 1891, and attended Knox College, Galesburg, Ill., and Dartmouth College, Hanover, N. H. Mr. Judson entered railway

William W. Judson

service in 1911, in the engineering department of the Spokane, Portland & Seattle, and in 1914, he went with the Northern Pacific as a rodman, later serving as instrumentman and assistant engineer in the engineering department at Centralia, Wash. In 1917, he joined the United States Army, becoming a first lieutenant in the transportation corps, and serving in France for 15 months. In 1919, he returned to the Northern Pacific, serving as an assistant engineer on maintenance and construction work until 1927, when he was assigned to the position of special assistant to the operating vice-president at St. Paul. Two years later, he was promoted to trainmaster on the Pasco division at Pasco, Wash., later being transferred successively to the Idaho division at Spokane, Wash., and to the Tacoma division at Seattle, Wash. In 1933, he was advanced to assistant to the general manager, with headquarters at Seattle, and on June 1, 1936, he was promoted to superintendent of the Yellowstone division, with headquarters at Glendive, Mont. On July 15, 1938, Mr. Judson was transferred to Missoula, Mont., where he was located until his recent promotion, which was effective February 1.

Alfred Jackson Lomas, whose appointment as superintendent, Capreol division, Canadian National, with headquar-

Alfred Jackson Lomas

ters at Capreol, Ont., was announced in the *Railway Age* of January 27, was born on February 17, 1888, at Spondon, County Derby, England. He entered railway service on July 3, 1909, as baggageman with the Canadian Northern (now C. N. R.) at Lake Joseph, Ont., being transferred to Sudbury, Ont., in a similar capacity on August 1, 1909. On September 1, 1909, he was appointed clerk, and on November 1, 1910, was transferred to Toronto, Ont., in the same capacity in the office of the superintendent of transportation. On June 1, 1914, Mr. Lomas became clerk in the bridge and building department at Key Harbour, becoming dock agent there on July 1. He was transferred to Trenton, Ont., in a similar capacity on September 1, being promoted to chief clerk in the transportation department there on September 6, 1914. On August 1, 1915, he was transferred in the same capacity to Rosedale, Alberta, and was promoted to yard agent there on June 1, 1917. On January 16, 1918, he became agent on the Capreol division and was appointed yardmaster there on August 16, 1918. On May 2, 1921, he went to Key Harbour as fuel supervisor and returned to Capreol as yardmaster on September 27, 1921. Mr. Lomas was appointed fuel supervisor at Key Harbour again on August 28, 1922, and on January 1, 1923, again assumed the position of yardmaster at Capreol. On September 11, 1930, he was promoted to acting assistant superintendent at Hornepayne, Ont. and was transferred to Capreol in the same capacity on October 1, 1930. On February 9, 1931, he became yardmaster at Capreol, being transferred to Gravenhurst, Ont., in the same capacity on January 10, 1932. On January 18, 1937, he returned to the Capreol division as acting assistant superintendent, and on February 22, again went to Gravenhurst as yardmaster. On April 16, 1937, he was promoted to assistant superintendent at Hornepayne, and was transferred to Capreol in the same capacity on February 21, 1938, which position he recently relinquished to become superintendent, Capreol division.

TRAFFIC

F. B. Swope has been appointed general agent, freight department of the Union Pacific, with headquarters at New York.

C. J. Murphy has been appointed general agent for the Illinois Northern at New York, a newly created position.

Manuel Munoz, Jr., has been appointed general agent, freight and passenger departments, for the New York Central at Mexico City, D. F.

C. P. McArthur, traveling freight agent on the Union Pacific at Spokane, Wash., has been promoted to general agent at Yakima, Wash., succeeding **R. J. Curtin.**

George Clark Potter, whose appointment as assistant freight traffic manager of the Southern, with headquarters at Charlotte, N. C., was announced in the *Railway Age* of February 10, was born on December 8, 1890, at Ramsey, Ill., and attended the Lexington (Ky.) high schools. He entered the railroad service in January,

George Clark Potter

1911, with the Cincinnati, New Orleans & Texas Pacific, at Lexington, Ky. From May, 1917 to May, 1919 he served in the

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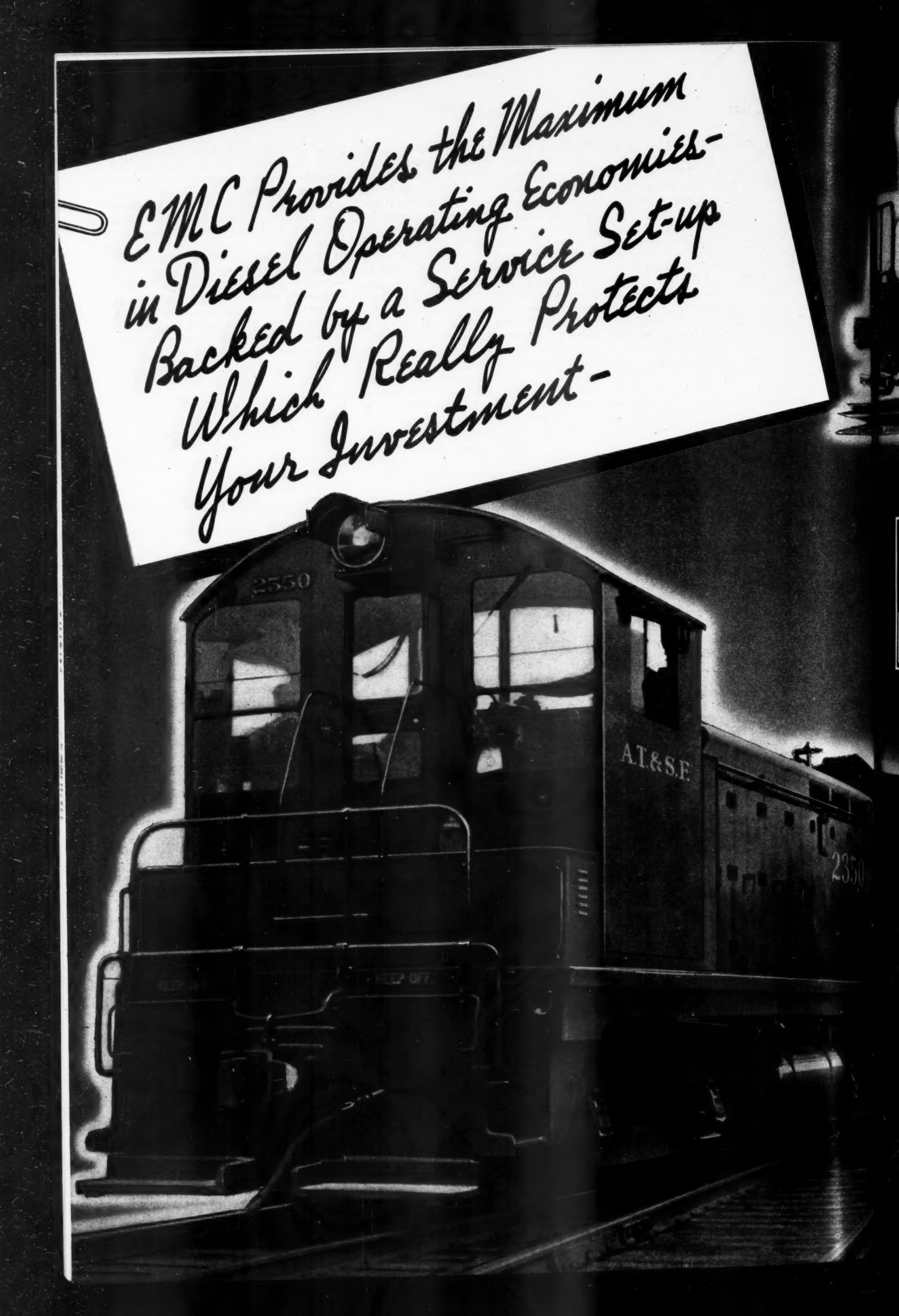
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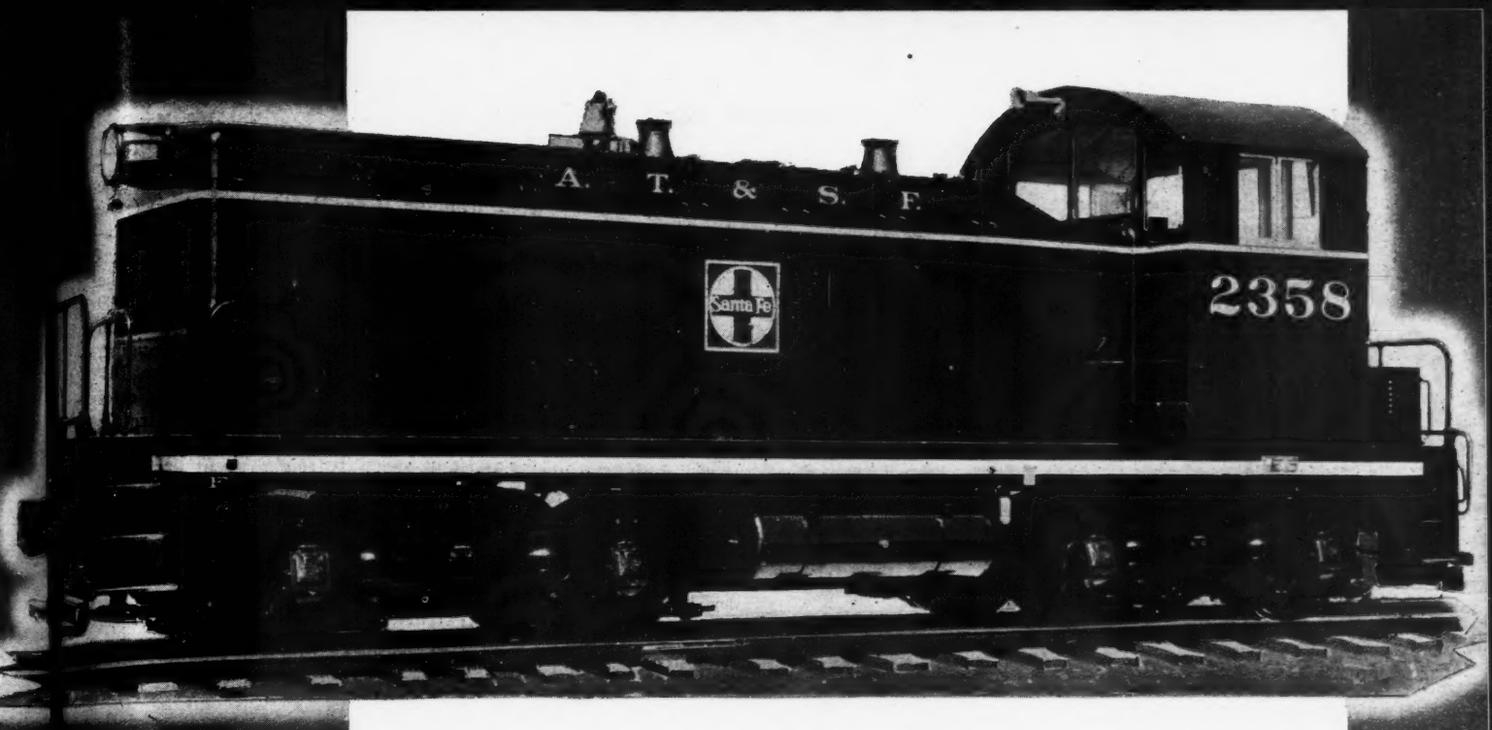

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U. S. Army, returning to railroad service at the latter date as an employee of the Southern, with headquarters at Danville, Ky. In September, 1919, he was transferred to the auditor's office of the Southern, at Washington, D. C. In April, 1920, he was appointed freight traffic representative at St. Louis, Mo., being transferred in the same capacity to Birmingham, Ala., in June, 1924, serving there until February, 1925, when he became commercial agent at Miami, Fla. Mr. Potter was appointed district freight agent, at Chattanooga, Tenn., in July, 1927, serving in that capacity until July, 1931, when he was appointed general freight agent of the Southern's subsidiary lines at Atlanta, Ga. In August, 1937, Mr. Potter was appointed district freight agent of the Southern, at Philadelphia, Pa., which position he held until his recent appointment.

W. H. Trice, commercial agent for the Norfolk Southern at Birmingham, Ala., has been promoted to general traffic agent, with the same headquarters, a change in title.

C. C. Morrison, assistant general agricultural development agent of the Great Northern, has been appointed Western development agent, a change of title, with headquarters as before at Seattle, Wash.

C. H. Goehner, commercial agent on the Missouri Pacific at St. Joseph, Mo., has been promoted to general agent at that point, succeeding **J. F. Cooney,** who retired on February 1.

Perl E. White, traveling freight and passenger agent for the Western Pacific at Omaha, Neb., has been promoted to general agent, with the same headquarters, succeeding **E. E. McCullough,** who has resigned.

James M. Fowler, commercial agent on the Illinois Terminal, with headquarters at Chicago, and **Edward F. Bliss,** chief clerk at St. Louis, Mo., have been promoted to general agents, both with headquarters at Chicago, two newly created positions.

Thomas A. Murphy, general agent on the Northern Pacific at Spokane, Wash., has been appointed general agent at Oakland, Cal., a newly created position, and **L. M. Ackerman,** traveling freight agent at Spokane, has been promoted to general agent at that point, succeeding Mr. Murphy.

A. O. Coke, commercial agent for the Illinois Central at Denver, Colo., has been promoted to general agent at that point, a newly created position. **A. R. Cooney,** commercial agent at Philadelphia, Pa., has been promoted to general agent at that point, also a newly created position.

M. C. Alderson, assistant general passenger agent on the Missouri-Kansas-Texas at Dallas, Tex., has been appointed general agent, passenger department, at Chicago, succeeding **R. E. Bowden,** who has been appointed traveling passenger agent at that point.

C. J. Youngblood, division freight agent on the Southern at Louisville, Ky., has been promoted to assistant freight traffic manager, with the same headquarters, succeeding **Ralph H. Morris,** whose retirement on February 1 was announced in the *Railway Age* of January 27.

R. A. Stanley, commercial agent of the Louisville & Nashville, with headquarters at New York, has been appointed general eastern freight agent, at New York, succeeding **C. A. Swope,** who will retire March 1 at his own request, after 54 years of service.

A. E. Hendee, assistant general freight agent on the Southern at Atlanta, Ga., has been promoted to general freight agent, with the same headquarters, a newly created position, and **D. Kirkpatrick,** assistant general freight agent at Washington, D. C., has been transferred to Atlanta, succeeding Mr. Hendee. **A. J. Dixon,** commerce agent at Washington, has been appointed assistant general freight agent at that point, replacing Mr. Kirkpatrick.

A. L. Day, assistant general freight agent on the Southern at Atlanta, Ga., has been promoted to assistant freight traffic manager, with the same headquarters, succeeding **F. H. Brown,** whose promotion to vice-president, with headquarters at Macon, Ga., is announced elsewhere in these columns. **F. C. Toal,** general agent, freight and passenger departments, at Cleveland, Ohio, has been advanced to assistant general freight agent at Atlanta, relieving Mr. Day.

Goodrich K. Murphy, whose appointment as assistant passenger traffic manager of the New York, New Haven & Hartford, with headquarters at New York city, was announced in the *Railway Age* of January 27, was born September 5, 1901, at New York. He attended Yale university and began his railroad career with the New York, New Haven & Hartford on April 15, 1934. On September 1, 1935, he was appointed assistant to passenger traffic manager, with headquarters at Boston, Mass., which position he held until his recent appointment as assistant passenger traffic manager.

Harry L. Lauby, whose promotion to assistant traffic manager on the Union Pacific, with headquarters at Salt Lake City, Utah, was announced in the *Railway Age* of February 10, was born at Pottstown, Pa., on August 19, 1891, and attended commercial college. He entered railway service on December 21, 1910, as a stenographer on the Union Pacific, later being promoted successively to ticket clerk, chief clerk and soliciting freight and passenger agent. During the World War he served with the U. S. Army, returning to the Union Pacific in March, 1920, as chief clerk in the traffic department at Philadelphia, Pa. Mr. Lauby was later promoted to freight traffic agent and on October 15, 1925, he was promoted to general agent at Philadelphia. On November 15, 1938, Mr. Lauby was transferred to New York, where he was located until his promotion on February 1.

Van Dyck Fort, whose retirement as eastern traffic manager of the Illinois Central with headquarters at New York, was announced in the *Railway Age* of February 3, was born on January 29, 1870 at Cedar Rapids, Ia., and entered railway service in 1885 as clerk in the local offices of the Burlington, Cedar Rapids & Northern (now part of the Chicago, Rock Island & Pacific) at Cedar Rapids, serving in that capacity until 1888; from 1888 to 1889 he was a clerk on the Wabash and from 1889 to 1892 he served as chief tariff clerk with the Chicago Great Western. In August, 1892, he entered the employ of the Illinois Central serving consecutively as chief tariff clerk and chief clerk, general freight department until October, 1901. He was assistant general freight agent from the latter date until September, 1909, when he was appointed general freight agent. In 1911, he was appointed assistant freight traffic manager with headquarters at Chicago. From September, 1914, to March, 1920, he was employed as assistant traffic manager with headquarters at Memphis, Tenn., being transferred in the same capacity to New Orleans, La., on the latter date. In February, 1921, he was appointed assistant traffic manager at Chicago. Mr. Fort served as freight traffic manager at Chicago from December, 1931, to July, 1932, when he was appointed eastern traffic manager at New York, the position he held until his retirement on February 1.

ENGINEERING AND SIGNALING

D. E. Rudisill, division engineer of the Monongahela division of the Pennsylvania, with headquarters at Pittsburgh, Pa., has been transferred to the St. Louis division, with headquarters at Terre Haute, Ind., succeeding **J. B. Jones,** whose promotion to assistant superintendent of freight transportation on the Central region, with headquarters at Pittsburgh, was announced in the *Railway Age* of January 20. **A. H. Stimson,** supervisor of track on the Pittsburgh division with headquarters at Derry, Pa., has been appointed division engineer of the Monongahela division, with headquarters at Pittsburgh, succeeding Mr. Rudisill.

Ernest R. Logie, whose appointment as district engineer, Southern Ontario district, of the Canadian National, with headquarters at Toronto, Ont., was announced in the *Railway Age* of February 3, was born on August 16, 1886, at Chatham, N. B. He entered the service of the Canadian National on January 1, 1919, as resident

Ernest R. Logie

Continued on next left-hand page

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engineer at Toronto, and on February 24, 1920, was appointed division engineer, Superior division. He returned to Toronto on November 5, 1920, as office engineer, and on June 1, 1921, was promoted to assistant engineer. On March 1, 1928, he was appointed division engineer, with headquarters at Belleville, Ont., which position he held until his recent appointment.

R. E. Couglan, supervisor of water supply of the Chicago & North Western, with headquarters at Chicago, has been appointed engineer of tests, with the same headquarters, succeeding **H. D. Browne,** who has been assigned to other duties. Mr. Couglan will continue also in charge of water supply.

E. M. M. Hill, engineer of construction and right of way agent of the Western region of the Canadian National, has been promoted to chief engineer of that region, with headquarters as before at Winnipeg, Man., succeeding **H. A. Dixon,** whose promotion, effective January 1, to chief engineer of operation for the system, with headquarters at Montreal, Que., was announced in the *Railway Age* of November 4, 1939.

Karl Huffman, whose appointment as engineer of construction of the Central region of the Canadian National with headquarters at Toronto, Ont., was announced in the *Railway Age* of February 3, was born on May 12, 1889, at Toronto. He started his railway career in Toronto on February 1, 1910, as draftsman in the engineering department of the Canadian National, being appointed assistant engineer in the right of way department on January 2, 1912. On June 1, 1915, he returned to the engineering department as draftsman, becoming assistant engineer on July 1, 1916. In June, 1921, Mr. Huffman was transferred to Capreol, Ont., in the same capacity in the operating department, being promoted to acting division engineer on July 16, 1923. On August 1, 1924, he returned to Toronto as assistant engineer in the engineering department, which position he held until his recent appointment.

H. T. Morrison, locating engineer, of the Canadian National, with headquarters at Toronto, Ont., has been retired on pension, effective January 26. Mr. Morrison was born at Bridgewater, N. S., on January 26, 1875. He was graduated from Dalhousie University in 1897 and next worked as instrumentman with the Dominion Iron & Steel Co., with whom he was employed from 1899 to 1901, in connection with surveys and construction of water supplies for that industry. From 1901 to 1904, he was instrumentman on surveys and resident engineer on construction of the Halifax & South Western. From 1904 to 1905, he was engineer maintenance of way on the Canadian Northern Quebec. From 1905 to 1908, he was in charge of survey parties on the James Bay and various other lines. From 1908 to 1918, he was assistant chief of surveys for the Canadian Northern, and after the formation of the Canadian National, he was appointed locating engineer and had charge of surveys included in which was the Longlac cut-off, Rouyn subdivision, between Taschereau and Rouyn, the recently-constructed Val d'Or subdivision, between Rouyn, Que., and Senneterre, and numerous other preliminary survey studies.

MECHANICAL

William Ferguson Connal, mechanical engineer of the Canadian National, with headquarters at Montreal, Que., has been appointed chief mechanical engineer, with jurisdiction over system matters. Mr. Connal was born on August 9, 1877, at Peterboro, Ont., and was graduated from McGill University at Montreal in 1897. He entered railway service on August 1, 1900 as special apprentice on the Lake Shore & Michigan Southern (now a part of the New York Central) and was a consulting engineer on that road from 1903 to 1904.

William Ferguson Connal

From the latter date until 1905 he was employed by the Canadian Pacific at Montreal. In 1905 he became shop superintendent of the Damascus Brake Beam Company. He was employed by the New York Central & Hudson River (now part of the New York Central) from 1907 to 1908 and from 1908 to 1915 he engaged in railway construction in Canada. From 1915 until 1919 he was employed by the Canadian Government (now the Canadian National) and in March, 1919, he was appointed mechanical engineer of the Canadian National, the position he held until his recent appointment as chief mechanical engineer.

OBITUARY

C. E. Hodskin, western freight agent for the Mobile & Ohio, with headquarters at Denver, Colo., died at that point on February 1.

Rolla R. Mitchell, freight traffic manager of the Union Pacific, with headquarters at Omaha, Neb., whose death on January 29 was announced in the *Railway Age* of February 3, was born at Ottawa, Kan., on October 30, 1875, and graduated from the University of Kansas in 1895. Two years later he entered railway service as a clerk in the general freight office of the Kansas City, Pittsburgh & Gulf (now part of the Kansas City Southern), and on August 1, 1898, he was appointed commercial agent at Texarkana, Ark., being transferred two years later to Memphis, Tenn. In 1901, he was transferred to Shreveport, La., and in 1906, he was promoted to assistant general freight agent at Texarkana.

Rolla R. Mitchell

Mr. Mitchell was advanced to general freight agent, with headquarters at Kansas City, Mo., on November 15, 1910, and ten years later he was appointed assistant freight traffic manager of the Union Pacific, with headquarters at Omaha. On February 1, 1927, he was promoted to freight traffic manager.

William S. McAbee, vice-president and general manager of the Union railroad, with headquarters at East Pittsburgh, Pa., died on February 9, at his home in Churchill Borough, Pa., at the age of 53. Mr. McAbee was born on October 23, 1886, at Prospect, Md., and attended the public schools and Iron City Business College at Pittsburgh, entering railway service on May 23, 1900, as weighmaster with the Baltimore & Ohio. He served in various clerical capacities on the B. & O. until June 1, 1909, when he entered the service of the Union as clerk and stenographer. On June 1, 1912, he became chief

William S. McAbee

clerk to the assistant superintendent. Mr. McAbee was appointed general yardmaster on March 1, 1918, and superintendent on March 1, 1924. He was appointed general superintendent on December 1, 1925, becoming vice-president on September 1, 1928. On April 1, 1938, Mr. McAbee was appointed vice-president and general manager, which position he held until his death.